TRUST CONSTRUCTION CORP.

LETTER OF TRANSMITTAL

51 Mount Joy Drive Tewksbury, MA 01876 Tel. 978-851-3456 FAX 978-640-0531

TO: Town Clerk
Town of Grafton
30 Providence Road
Grafton, MA 01510

DATE: 5-1-2020

ATTENTION: Town Clerk

RE: Determine Completeness
High Point Estates, of Adams Road Co.

Attached Under Separate cover via	the following items
ns SamplesSpecifications	
DESCRIPTION	
3-hole notebook Request for Determination of Completeness of H As-built Layout – 10 sheets Layout plans – 5 sheets	iigh Point Subdivision
	202
	DESCRIPTION 3-hole notebook Request for Determination of Completeness of H As-built Layout – 10 sheets

THESE ARE TRANSMITTED AS CHECKED BELOW

_XFor Approval _	_For Your Use	As Requested	For Review and Comment
For Your Informati	on		

REMARKS: I am submitting two full sets.

Please time stamp both sets. Keep a set for your records. Return one set to me.

RECEIVED MAY Q 4 2020

Zoning Board of Appeals

COPY TO Grafton 7 RA

SIGNED

P. L. Hingorani, President

Adams Road Company, LLC 51 Mount Joy Drive Tewksbury, MA. 01876

High Point Estates

Determination of Completeness of the **Subdivision**



ADAMS ROAD COMPANY, LLC 51 Mount Joy Drive, Tewksbury, MA. 01876 Tel 978-851-3456

Email: trustcorp@aol.com

By Electronic, U.S. Mail and in hand.

April 30, 2020

William McCusker, Chairman Zoning Board of Appeals Town of Grafton 30 Providence road Grafton, MA. 01510

Re: High Point Estates: Request for Determination of Completeness of the Subdivision.

Dear Mr. McCusker:

I am the developer for High Point Estates, Comprehensive project off Adams road in Grafton.
I am the Manger of the Owner namely Adams Road Company, LLC. I am now requesting you to determine the project is Complete as defined in 3.3.11. in the Grafton Rules and regulations governing the Subdivision of land. Please see attached supporting documents. I have followed guidance in a memo from Mr. Chris McGoldrick, the Town Planner dated March 25,2020.

Sincerely yours,

Peter L Hingorani, Manager.

Adams Road Company.

Cc: Patrick Garner Jeff Walsh

Tim Barlow.

Graf/Graf-Completeness. Cover letter 4-30-2020

ldre Manager



TOWN OF GRAFTON

GRAFTON MEMORIAL MUNICIPAL CENTER 30 PROVIDENCE ROAD **GRAFTON, MASSACHUSETTS 01519** (508) 839-5335 x1120 • FAX (508) 839-4602 planningdept@grafton-ma.gov www.grafton-ma.gov

DETERMINATION OF COMPLETENESS (DOC) WORKSHEET (Subdivision Rules and Regulations, Section 3.3.11)

Examples noted below can be found on the Planning Department webpage: Applications & Submission Information.

Project: High Point Estates	34	MRS	P#	<u></u>
Contact Name: Peter Hingorani	90	_Phone:	<u>978-851</u> -	3456
Date Submitted:	20		3* K	
Required Information	SRR Section #	Example #	Applicant	ekkymi Otkaza
Written request for Determination of Completeness filed with Town Clerk (by registered mail) and Planning Board	3.3.11.2	1	1	
Newspaper announcement (Grafton News: 508 839 2259) within 14 days of submitting request for DOC	3.3,11.2	2A 2B	*	
Certificate of Compliance Call Grafton Planning Department or visit the web page: www.town.grafton.ma.us or by calling the office	3.3.11.2.b.	3	/	
Inspection Forms i.e. Graves Engineering Construction Completeness Review; Conservation Commission Certificate of Compliance	3.3.11.2.b.	4A 4B	Pcoc	
Written Evidence of Compliance from Planning Board and Superintendent of Streets i.e. Graves Engineering Construction Completeness Review	3.3.11.2.d.1	4A _	¥.	
Written Evidence of Compliance from appropriate Water District	3.3.11.2.d.2	5A 5B	Valent Va	
Written Evidence of Compliance from Board of Health or Board of Sewer Commissioners (if applicable)	3,3,11,2.d.3	6A 6B 6C		
Written Evidence of Compliance from Fire Department	3.3.11.2.d.4	7	3	
As-built plans include: Graves Engineering Acceptance Plan and As-Built Plan Review	3.3.11.2.e.	8		
Vritten Request for final inspections y Planning Board	3.3.11.2.f.	9	*	
itizen petition to Board of Selectmen or street acceptance (if applicable)	7.5	. 7 9	*	

X I seek ZBA

HIGH POINT E	STATES: REQUEST FOR COMPLETENESS	Applicant response		
IST OF DOCU	IMENTS SUBMITTED.			
EXAMPLE #	DESCRIPTION			
1	Writton request for Determination of Co. 1.1			
	Written request for Determination of Completeness	Included		
2	Newspaper announcement	Applicant seeks guidance*		
3	Certificate of Compliance	RPE certificate included		
4	Inspection Forms	Applicant included PCOC		
4A	Written n evidence of Compliance from planning board	Applicant seeks guidance*		
5	Written evidence compliance with Water District	Included		
6	Written evidence compliance with Board of health	Included		
7	Written evidence of compliance with Fire dept.	Included.		
8	As-built plans	Included. Pending one more review by Graves engineering.		
9<	Written request for final inspection by Planning Board.	Applicant seeks guidance*		
188. 9	Citizen's Petition to Board of Selectmen, if applicable	Applicant seeks guidance*		
MISC. ITEMS.				
	Cert. of Good standing	Submitted for ZBA's approval.		
	Acceptance Layout Plans	Submitted for ZBA's approval.		
	Grant of Roads.	Submitted for ZBA's approval.		
	Grant of Easements	Submitted for ZBA's approval.		
	Grant of Open Space	Submitted for ZBA's approval.		
*	Applicant seeks guidance from ZBA, as this is a 40 B project.			

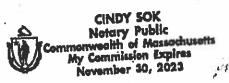


TOWN OF GRAFTON
GRAFTON MEMORIAL MUNICIPAL CENTER
30 PROVIDENCE ROAD
GRAFTON, MASSACHUSETTS 01519
(508) 839-5335 x1120 • FAX (508) 839-4602 www.grathin-ma.gov

CERTIFICATE OF COMPLIANCE

(Subdivision Rules and Regulations, Section 3.3.11.2.b.)

NAME OF SUBDIVISION: High Poi	nt Estates
TREET NAMES: High Point Drive	e & Pepperbush Court
o the Planning Board of the Town of Grafton:	
We certify that to the best of our knowledge, information with the approved	(F. 19. 10)
High Point Estates Subdivisio	n Latest Rev. 08-31-06
plans, and in accordance with the Town of Grafton Grafton Zoning By-Laws.	Subdivision Rules and Regulations and the Town of
INGINEER	DEVELOPER ·
SANJAY KAUL 40460-C	Adams Road Company LLC
ame of Engineer (please print) MA REG #	Name of Developer (please print)
idreag. LALA ASSOCIATES ENGINEERS LL	C Address:
· 37 OLD VILLAGE ROAD	51 Mount Joy Drive
ACTON MA 01720	Tewksbury, MA 01876
978 337 5252 NOV 28, 18	Phone: 978-851-3456
OTHER SANJAY KAUL	1. Haz 11-27-2018
gnature 3 CIVIL NO. 40460 Date	Signature P. L. Hugorant Date
POTESSIONAL BURN	
gineer's Seal	Notary Signature & Seal
AA	My Commission Expires 11-30-2023





Bk: 60227 Pg: 341 Page: 1 of 15 04/02/2019 03:27 PM WD For Registry of Deeds Use Only



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

DEP File Number:

WPA Form 8B - Certificate of Compliance

164-602 Provided by DEP

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Declaration

A. Project Information

Important:
When filling out
forms on the
computer, use
only the tab key
to move your
cursor - do not
use the return
key.



2.

3.

Date



	100	
 This Certificate of Compliance is iss 	sued to:	
Peter Hingorani		
Name		
51 Mount Joy Drive		
Mailing Address	CONTRACTOR OF THE CONTRACTOR O	
Tewksbury	MA	04.070
City/Town	State	01876 Zlp Code
This Certificate of Compliance is issu	and for work regulated by a first	Zip Code
Peter Hingorani	ea Delineation issued to:	Order of
Name		
5/26/06, Amended 10/3/06	164	-602
Dated		File Number
The englant starts to the start of	DEI	I NO LEGITIDES
The project site is located at:		
High Point Estates	Grafton	
Street Address	City/Town	
	Oldy Tomit	
Assessors Map/Plat Number	Parcel/Lot Number	
The final Order of Conditions or Order	of Possuma Arra Datia	
the Registry of Deeds for:	Of Resource Area Delineation (vas recorded at
Property Owner (if different)		
Worcester	39056 &	270 8 00
County	39935	379 & 20
28	00300	Page

4. A site inspection was made in the presence of the applicant, or the applicant's agent,





Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands

WPA Form 8B - Certificate of Compilance
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

DEP File Number:

Provided by DEP

B. Certification

D. Ocidification			4
Check all that apply:	G.		
Check all that apply: Complete Certification: It is hereby certified above-referenced Order of Conditions has it. Partial Certification: It is hereby certified the regulated by the above-referenced Order of Completed. The project areas or work subject to been completed and are released from this Order of Conditions. The Construction of Conditions of Invalid Order of Conditions: It is hereby cell above-referenced Order of Conditions never Conditions has lapsed and is therefore no lor regulation under the Wetlands Protection Act Notice of Intent and receiving a new Order of	neen satisfactorily at only the following tonditions have been to this partial certification of the completences of the completences of the completences of the completences of the completences. The completence of the compl	g portions of wo an satisfactorily cation that have Review + 19, detail or k regulated by Order of	"Review of the remaining the
Ongoing Conditions: The following condition (Include any conditions contained in the Final monitoring, that should continue for a longer page).		nall continue: naintenance or	
Condition Numbers:			
Order of Resource Area Delineation: It is he resource area delineation for the above-reference satisfactorily completed C. Authorization	reby certified that nced Order of Co	the wetland nditions has be	en
Issued by:			
Grafon Conservation Commission		alailia	
This Certificate must be signed by a majority of the copy sent to the applicant and appropriate DEP Rephtip://www.mass.gov/eea/agencies/massdep/about/		Date of Issuance mmission and a	1
Signatures:	oonadis).	/	
	P313	for	
Jan .	_ Helen	Chency	·- •
			-



Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands

DEP File Number:

WPA Form 8B - Certificate of Compliance Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

164-602 Provided by DEP

D. Recording Confirmation			_
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D. Recording Confirmation
The applicant is responsible for ensuring that this Certificate of Compliance is recorded the Registry of Deeds or the Land Court for the district in which the land is located.
Detach on dotted line and submit to the Conservation Commission.
Conservation Commission
Please be advised that the Certificate of Compliance for the project at:
Project Location DEP File Number
Has been recorded at the Registry of Deeds of:
County
for:
Property Owner Press Hingaram
and has been noted in the chain of title of the affected property on:
4-2-2019 60227 341 Date Book Page
If recorded land, the instrument number which identifies this transaction is:
0
If registered land, the document number which identifies this transaction is:
Document Number
Signature of Applicant

February 14, 2019

Zoning Board of Appeals Town of Grafton 30 Providence Road Grafton, MA 01519



100 GROVE ST. | WORCESTER MA 01605

T 508-856-0321

gravesengineering.com

F 508-856-0357

Subject:

High Point Estates (Adams Road Trust) Construction Completeness Review

Dear Board Members:

As requested, Graves Engineering, Inc. (GEI) performed site visits through January 12, 2019 to evaluate construction completeness at the High Point Estates 40B residential subdivision located off Adams Road. This letter addresses construction-related issues only. The review of as-built plans, acceptance plans and legal descriptions is being

Lot development is still in progress. The top course of road pavement was placed on High Point Drive and Pepperbush Court on November 23, 2016. Other finish surfaces (i.e. loam and seed, riprap, etc.) are being placed as lot development occurs.

This letter is a follow-up to our previous construction completeness review letter dated November 20, 2017. For clarity, comments from our previous letter are italicized and our comments to the applicant's responses are depicted in bold. Previous comment numbering has been maintained.

GEI previously issued a construction status letter on February 22, 2017. Our February 22, 2017 letter was prepared without the benefit of a detailed walk-through of the site. Since February 2017, progress has been made to address issues identified in that letter. This (November 20, 2017) construction completeness letter was prepared based upon a thorough investigation of the site and consultation with Grafton DPW staff. GEI and Grafton DPW were diligent in evaluating construction completeness with the intention of providing a comprehensive analysis of their findings. However, as the developer proceeds with executing the work described herein and completing lot development, should additional conditions be discovered that warrant action by the developer, GEI and Grafton DPW reserve the right revise the following list of items.

Work to be done by the developer:

- 1. GEI addressed the preparation of as-built plans, acceptance plans and legal descriptions in a separate review letter dated February 22, 2017. Issues presented in the February 22, 2017 review letter need to be addressed. No further comment necessary.
- 2. Install the remaining nine bounds not yet confirmed by GEI as being installed or assist GEI in confirming that these nine bounds have been installed. GEI identified the specific bounds to the project surveyor. installation of eight of the nine bounds has been confirmed. The remaining point not confirmed as being marked with a bound or other acceptable survey marker

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is the point at the northwest corner of the site along the sideline of Adams Road on the property line separating the open space and nif Massoni. The as-built plan notes a ½" diameter rebar and the project surveyor informed me that the rebar had been set by a surveyor for the abutting property owner. Nonetheless we were not able to locate this rebar; its existence needs to be confirmed or a bound needs to be set.

- 3. Finish the installation of street lights and street trees.
 As of December 22, 2018, the street lights had been installed but the following street lights were still not in service: across from #65 High Point Drive, at the intersection of High Point Drive and Pepperbush Court, at the Pepperbush Court cul-de-sac and the light near #18 High Point Drive. One street tree still needs to be planted at Lot 52 once Lot 52 is developed.
- 4. In the new drain manhole at High Point Drive station 18+30+/- (near the intersection of Alder Courl), cut back the pipe from the new catch basin that extends excessively long into the manhole, install four ladder rungs, build an invert channel and finish sealing around the new inlet pipe.

 Not addressed yet.
- 5. Reseal around the 12" diameter outlet pipes and the 6" diameter inlet pipes in the two catch basins at Pepperbush Court station 1+91.

 Not addressed yet.
- 6. Remove debris (possibly mortar) on the invert shelf and in the invert channel in drain manhole DMH Q at Pepperbush Court station 1+79. The manhole will be opened and this work will be confirmed concurrent with the developer's work to address the preceding comment.
- 7. Replace the broken cascade catch basin grate and install it in the correct direction at High Point Drive station 31+50+/- left.

 Not addressed yet.
- 8. Reinstall the hood that became dislodged and fell in catch basin at High Point Drive station 36+58 right.

 A slit sack was in the catch basin and installation of the hood couldn't be confirmed. The work will be confirmed after use of the slit sack is no longer necessary.
- 9. An off-road catch basin was added at High Point Drive station 38+00+/- (on Lot 52). The following needs to be done: fill the settlement around the catch basin, cut the trees and brush around the catch basin in what will be the drain easement, stabilize any disturbed ground surfaces, remove roots growing through the "pick holes" inside the catch basin and seal the pick holes with mortar. Also, an easement will need to be created for the catch basin.

The work outside the catch basin has not been addressed yet. A silt sack was in the catch basin and work within the catch basin couldn't be confirmed. The work will be confirmed after use of the silt sack is no longer necessary.

- 10. Seal the opening around the Inlet pipe in the drain manhole at High Point Drive station 38+40+/- that receives runoff from the off-road catch basin.
- 11. Replace the broken catch basin grate in Adams Road on the northern side of the intersection of High Point Drive. The grate has been broken since its installation in Not addressed yet.
- 12. Locate and raise to finish grade the manhole frames and covers for DMH L and DMH K located in the "boulevard" entrance. Both covers appeared to be buried in the landscaping islands.

 Not addressed yet.
- 13, Locale and raise to finish grade the manhole frames and covers for DMH X5, X6, X7 and X8 located adjacent to Basin 4 and cut the brush growing in the drainage easement. These covers appeared to be buried or lost in the vegetation.

 Not addressed yet.
- 14. Re-establish permanent vegetative cover around the new drop inlet at the intersection of High Point Drive and Alder Court (excavation recently occurred and the inlet grate was lowered). Inside the drop inlet, the pipes need to be cut back (they extend too far into the structure) and the spaces around the inlet pipes need to be re-sealed with Permanent cover has been re-established around the new drop inlet. Work within the drop inlet has not been addressed vet.
- 15. Remove stockpiled rock from behind the "Tot Lot" and re-stabilize disturbed surfaces. The stockpiled rock has been removed. Rocks that rolled into the woods will have to be removed and the disturbed area still needs to be permanently stabilized.
- 16. Patch High Point Drive sidewalk asphalt where the drain line was recently installed from Arrowwood Court.

 Work was in progress on December 14, 2018 concurrent with other work on Arrowwood Court.
- 17. Fill the settlement/depression in the ground at the top of the inlet weir at the triple culverts at High Point Drive station 3+60+/- left and stabilize the ground surface.

 Not addressed yet.
- 18. Place top course asphalt on two of the common driveways. GEI understands that this work will be executed as lot development is completed along each common driveway. Arrowwood Court top course paving was in progress on December 14, 2018.
- 19. GEI walked the trails on the project. Please refer to Sheet 17 of the plans for trail focations. The perimeter trail from Lot 14 to Basin 4 (behind Lot 48) was satisfactory except for the section behind Lot 44 and possibly the section near Basin 4. It appeared that the trail hadn't been constructed across the rear of Lot 44. Vegetation needs to be cut across the back of Lot 44 from the Lot 43 property line to the Lot 45 property line. Near Basin 4 the trail appeared to drift off the project parcel and onto abutting

land owned by the Town of Grafton. GEI defers to the Zoning Board of Appeals if the trail's encroachment (possibly ten feet or less onto the abutting property) needs to be addressed.

There have been no changes to the trails. At a minimum, the trail across the rear of Lot 44 needs to be constructed.

20. The trail on Lots 55 and 56 is too steep perpendicular to the direction of travel and has a boulder retaining wall in the way near High Point Drive. At the rear of Lots 55 and 56, a pedestrian must walk down (or up) a boulder retaining wall that is approximately four feet high. On the property line of Lots 69 and 70, there is a stone retaining wall approximately 3.5 feet high approximately 100 feet long that appears to run along the center of the trail easement. GEI suggests that the developer and GEI walk the trails with the appropriate approving authority(les) to determine if there are unacceptable impediments relative to use of the trails.

GEI understands that the developer discussed this issue with the Zoning Board of Appeals and that the developer was to submit a plan of proposed trail modifications prior to their implementation. No modifications have been made to the trails and GEI is not aware of any plans having been submitted.

- 21. Determine with the Fire Department if a street name sign is needed at the intersection of High Point Drive/High Point Drive to identify the right-side portion of High Point Drive (when driving into the project). Install such a sign if it's determined to be needed.

 GEI is not aware whether the developer has solicited input from the Fire Department.
- 22. Permanently stabilize all disturbed surfaces and where grass is to be utilized for stabilization and establish vigorous mature grass growth. For example, limited areas within the right of ways haven't yet received loam and seed placement, the Cape Cod berm along the right side of Pepperbush Court needs to be backed-up with loam and seeded from High Point Drive to the catch basin at station 1+91, and sediment deposited in the right-of-way from Lot 27 development needs to be removed and the area permanently stabilized.

The berm along Pepperbush Court has been stabilized with loam and seed. A retaining wall was constructed at Lot 27 and the steep slope above the retaining wall was stabilized with riprap. The disturbed area up-gradient of the riprap consisted of bare soil as of December 14, 2018. Erosion from Lot 48 (an undeveloped lot) is being deposited on the northeast corner of the access way for Basin 4. In short, permanent stabilization is a work in progress as lot development occurs. Any ongoing erosion needs to be addressed as soon as possible on a temporary basis until permanent stabilization can be achieved.

23. Remove any accumulated sediment from the stormwater basins or other drainage infrastructure, permanently re-stabilize any disturbed surfaces and install/re-install forebay check dams. Accumulated sediment at the inlet to Basin 2 is up to the fops of the inlet pipes, and excessive sediment is present at the inlets to Basin 1 and Basin 4. The sediment accumulation at Basin 4 begins approximately fifteen feet into the basin from the flared end section. The riprap aprons may need to be supplemented or replaced after the sediment is removed.

Accumulated sediment was removed from Basin 2. Sediment still needs to be removed from Basin 1 and Basin 4. The developer needs to confirm all riprap

aprons and forebay check dams at the basin inlets are in place and install any

- 24. After sediment is removed from the inlet to Basin 2, the up-gradient drainage lines that discharge to the basin need to be jet-cleaned. The pipe from the nearby-swale to Basin 2 needs to be cleaned and the drain lines from DMH I (adjacent to High Point Drive) to DMH H-1 (next to Basin 2) and from DMH H-1 to Basin 2 will need to be cleaned. The pipes in DMH H-1 are ¾ full of sediment.

 This appears to have been addressed, but GEI could not confirm cleaning of the drain line between DMH I and DMH H-1. The invert of DMH H-1, the drain line from DMH H-1 to Basin 2 and the pipe between the nearby swale and Basin 2 had been cleaned.
- 25. Remove sediment at the bottom of the access road to Basin 4, regrade the lower section of the access road (the lower 20 to 30 feet of the access road is too steep) and stabilize any disturbed surfaces.

 Not addressed yet. Also, on Lot 48 erosion is now occurring on the access road to Basin 4. Any ongoing erosion needs to be addressed as soon as possible on a temporary basis until permanent stabilization can be achieved.
- 26. Remove erosion control barriers (e.g. silt fence at Basin 2) wherever erosion control barriers are no longer needed.

 This will have to be addressed as areas are permanently stabilized. Silt fence is still in place at Basin 2.
- 27. Stabilize areas up-gradient of Lot 76 (existing house), remove deposited sediment on and near Lot 76 and permanently stabilize disturbed and/or un-stabilized areas. Stormwater runoff that flows toward Lot 76 needs to be directed around the south side of the pool house,

 This has not been addressed yet. GEI understands that an enforcement order was issued by the Grafton Building Department. GEI has recently been assisting the Building Department with review of plans proposing modifications to address this issue.
- 28. Obtain a Certificate of Compliance and record it at the Worcester District Registry of Deeds for any Order(s) of Conditions issued by the Grafton Conservation Commission for construction of the roads or road-related infrastructure.

 GEI understands that the applicant requested a Certificate of Compliance. Some of the required work cited herein is also applicable to the project's Order of Conditions.
- 29. The catch basins were cleaned in or about December 2016. The developer is responsible for continued road and road-related infrastructure maintenance (e.g. catch basin cleaning, street sweeping, stormwater basin maintenance) and repairs until the roads are accepted as public ways.

 No further comment necessary.
- 30. The developer should be aware that the Grafton Subdivision Rules and Regulations have specific requirements relative to Determination of Completeness for subdivision projects. This process differs from and occurs in advance of soliciting the Town to accept the road and road-related infrastructure. If not already done, the developer

should make himself aware of the Determination of Completeness process and should direct any questions to the Zoning Board of Appeals, the Board having permitting and administration jurisdiction for 40B projects. No further comment necessary.

Additional Comments, February 14, 2019

31. As observed during periods of cold weather, groundwater and/or stormwater seepages (i.e. slow steady prolonged flow) that are discharging to sidewalks and the road are freezing, causing ice formation and slippery conditions. The seepages need to be addressed to eliminate the ice formation. GEI observed such conditions on the sidewalk in front of 80 High Point Drive (adjacent to Arrowwood Court) and on the sidewalk on the down-gradient side of the 3 Pepperbush Court driveway. A subdrain was installed along the south side of Arrowwood Court; groundwater seepage was occurring on the north side of Arrowwood Court even after the subdrain was installed. GEI has also been advised of seepage from Lot 27 (48 High Point Drive) that impacted Myrtle Court and High Point Drive but did not observe that seepage and icing condition

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,

Graves Engineering, Inc.

Jeffrey M. Walsh, P.E.

Principal

Cc: Robert Berger, Grafton Building Inspector Joe Laydon, Grafton Town Planner Grafton Conservation Commission Brian Szczurko, Grafion Engineering Department Paul Cournoyer, Grafton DPW Peter Hingorani, Adams Road Company Tim Barlow, Barlow Construction Patrick C. Garner; Patrick C. Garner Co., Inc.

February 14, 2019

Zoning Board of Appeals Town of Grafton 30 Providence Road Grafton, MA 01519



100 GROVE ST. | WORCESTER MA 01605

T 508-856-0321

F 508-856-0357

gravesengineering.com

Subject:

High Point Estates (Adams Road Trust) Review of Draft As-Built Plans

Dear Board Members:

We received the following documents November 6, 2018:

- Plans entitled <u>As-Built Lot Layout</u>, <u>High Point Estates Subdivision</u>, <u>Grafton</u>, <u>Massachusetts</u> dated December 15, 2016, prepared by Patrick C. Garner Co., Inc. (10 sheets).
- Plans entitled Road Layout Plans, High Point Drive dated October 15, 2018, prepared by Patrick C. Garner Co., Inc. (5 sheets).

We also received the following documents November 7, 2018 via e-mail:

- Document entitled Grant of Easements. (3 pp)
- Plan entitled <u>Plan Modifying Subd. Easements, High Point Estates, Grafton, MA</u> dated March 13, 2017, prepared by Patrick C. Gamer Co., Inc. (1 sheet)

We also received the following documents November 9, 2018 via e-mall:

Document entitled Grant of Open Space. (3 pp)

We also received the following on December 14, 2018:

E-mail from Trust Corp. with 18 attachments.

In advance of the formal submittal of as-built plans, Graves Engineering, Inc. (GEI) was requested to review the draft as-built plans for compliance with Rules and Regulations Governing the Subdivision of Land, Grafton, Massachusetts and for substantial conformance with the approved plans and approved plan modifications. GEI issued its first review letter on February 22, 2017.

This letter is a follow-up to our previous draft as-built plan review letter dated February 22, 2017. For clarity, comments from our previous letter are *Italicized* and our comments to the applicant's responses are depicted in **bold**. Previous comment numbering has been maintained.

Our comments follow:

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As-Built Plan Review

The as-built plans were not revised; the plan set received on November 6, 2018 is the same plan set we received on December 21, 2016 which was the subject of our February 22, 2017 review letter. No revisions have been made to address the following comments:

- 1. The as-built plans must be revised to include the water infrastructure (water mains, in-line valves and hydrarits), subdrains, underground and above-ground electric/CATV/telephone utilities infrastructure and house numbers (we recommend that the lot numbers already on the plans remain in place). These features can be surveyed (where accessible) and/or compiled from available sources of information (e.g. contractor, utility companies). GEI can provide the project surveyor with information pertaining to subdrain locations. (SR&R §3.3.11.2.e)
- 2. To be consistent with other subdivisions in Grafton, the as-built plans need to be revised to include street trees and topography (record topography only) within the rights-of-way.
- Road stationing needs to be provided on Sheets 2 5 so that information on the profile sheets can be viewed in coordination with the plan-view sheets and vice versa.
- 4. The as-built plans show the light poles and fixtures at all of the proposed locations (according to the proposed Street Lights plan, dated February 14, 2006 and last revised March 28, 2006 prepared by Patrick C. Gamer Co., Inc.). As of GEI's last site visit on December 22, 2016, all of the light poles and fixtures have not been installed.
- 5. Based upon a meeting that I attended with Town staff and the ZBA Chairman on January 23, 2017, the as-built plans need to show any walls, driveways, planted trees and any other infrastructure and/or obstacles that encroach onto easements or the Open Space. The as-built plans currently don't show any encroachments but need to be revised to show such encroachments. We understand that a retaining wall encroaches into the drain easement on Lot 3 (#94 High Point Drive), a retaining wall encroaches into the Open Space access easement on Lot 55 (#11 High Point Drive) and it has been reported that a driveway encroaches onto the Open Space (location unknown to GEI). There may be other encroachments.
- 6. The as-built plans must be revised to include spillway elevations for Basin 1, Basin 2, Basin 4, Basin 5 and the Rear Detention Basin.
- 7. On Sheet 1 at the north side of the property along the chain link fence that abuts the Massachusetts Turnpike, the line whose bearing is "S81"34'59.51"E>" appears to have an incorrect length label of "1473.78". Also, the boundary point on the west end of this line needs to be labeled.
- 8. On Sheet 1, along the front property line for Lot 61 there is a distance labeled "96.12". This distance does not appear to be correct (based upon scaling of the submitted draft as-built plan). The plans must be revised accordingly.

- 9. On Sheet 1, the following bearings and distances were missing but need to be provided. The plans must include all bearings and distances.
 - a. The bearing and distance for property line that borders Westborough (roughly 210 feet long).
 - b. The bearings and distances along the north and south edges of the 15' wide Open Space access easement that passes through Lots 15 and 20 from Alder Court to the Open Space.
 - c. The bearings and distances along the north and south edges of Alder Court (an Open Space access easement) that passes through Lots 15, 16, 17, 18, 19 and 20.
 - d. The Open Space easement lines, distances and bearings at the northwest corner of Lot 14 and on the adjacent Open Space. We understand that these missing easements were part of the 20-foot wide access easement to Lot 14 and the Open Space.
 - e. The bearings and distances along the north and south edges of Arrowwood Court (an Open Space access easement) that passes through Lots 10, 11, 12 and 13.
 - f. The distance on the eastern edge of the twenty (20) foot drain easement that passes through Lot 10.
- g. The distance on the western edge of the twenty (20) foot drain easement that is on Lot 1 adjacent to the Lot 2 property line.
- 10. On Sheet 1, the drain easements at the rear of Lots 41, 42, 43, 44 and 45 were not shown. On the construction plans, these easements were originally ten feet wide. The easement on Lot 41 was further revised by way of a construction plan last revised August 5, 2008 to be 25 feet wide as measured from the southern property line and at various widths up to approximately 50 feet wide as measured from the western property line. Similarly, on Sheet 10 the ten-foot wide easements at the rear of Lots 42 and 43 were not shown on the "Detail of Swale & Rear Detention Basin" inset; these easements are needed to allow access around the stormwater swale that is now located within the Open Space. Also, potential access from the Winterberry Court common driveway easement needs to be addressed. Based upon construction plans last revised August 5, 2008, we understand that the access and utility easement was extended to Winterberry Court. Neither Sheet 1 nor Sheet 10 show this easement to Winterberry Court. However, physical access may exist from Pepperbush Court via the "Tot Lot".
- 11. On Sheet 1, the drain easement along the southern side of Lots 34, 40 and 41 was labeled as *20' Drain Easement but was drawn as being ten feet wide. We understand that the easement was intended to be a ten (10) foot wide drain easement. The drain easement's label must be revised.
- 12. On Sheet 1, the drain easement at the rear of Lots 2 4 was labeled as being 20 feet wide but is actually 25 feet wide; the label needs to be revised.
- 13. On Sheet 2, alevations need to be shown for the inlet inverts of the triple box culverts and for the inlet weir crest.
- 14. On Sheets 3 and 4, the lines for the sidewalks need to be deleted where the sidewalks cross the paved portions of the common driveways.

- 15. On Sheet 4 the rim of "MHX1" was labeled as "Rim=4453.12". This appears to be a typographical error but must be revised nonetheless.
- 16. On Sheet 5, the drop inlet that was installed on Lot 52 and connected to drain manhole "AA2" and its connecting pipe need to be shown on the plan along with pertinent information (e.g. elevations, pipe slope, pipe diameter).
- 17. On Sheet 7, the label for "MH C" must include the missing inlet invert elevations for the catch basins connected to this manhole.
- 18. On Sheet 10, there is an inconsistency between the detail of Basin 4 and the layout of the drainage pipes to Basin 4 as shown on Sheet 4. Sheet 10 shows a manhole downstream of "MHX5" before the drainage pipe enters Basin 4. This additional manhole was not shown on the layout view on Sheet 4. If there is a manhole installed (as shown on Sheet 10) the pertinent information (rim and invert elevations) must be provided and the manhole must be included on Sheet 4. If there is not a manhole, as shown on Sheet 10, then Sheet 10 must be revised.
- 19. On Sheet 10, there are two topographic contours labeled as "483" with leader notes on the "Detail of Swale & Rear Detention Basin" inset. One of these 483 contours was also labeled on Lot 42 as "484" and the other 483 contour ties into the dashed line that represents the 10' Wide Access Drive" on the Open Space (southeast of the detention basin). The line work needs to be corrected and the labels updated as necessary.
- 20. On Sheet 10, the scale labels for the various insets need to be checked and revised as necessary. Most of the labeled scales appear to be incorrect (e.g. were plotted at 1" = 40' but were labeled as 1" = 20'. Also, on the inset for Basin 4, the easement lines were not drawn to create 20-foot and 40-foot easements (on Lots 48 and 49) as labeled on the inset; the easement lines need to be revised.
- 21. The plans don't show fences at the four stormwaler basins. Per correspondence from the Grafton Conservation Commission to Peter Hingorani dated July 21, 2016, after consulting with Grafton Department of Public Works, the regularment for installing these fences under MassDEP File #164-602 (Order of Conditions) and Grafton Wellands Permit WP #449 was eliminated. We defer to the Zoning Board of Appeals if it has the same or a differing position under the Comprehensive Permit relative to not installing fences at these locations. Sheets 18 20 of the construction plans had shown fences:
- 22. We defer to the Zoning Board of Appeals (who may wish to consult with Special Town Counsel) whether the stommwater basins (or portions thereof) located on Open Space will require easements. Our concern is if the Open Space parcels are not conveyed to the Town, the Town may not have the ability to enter onto the Open Space for the purpose of accessing the stormwater basins should the Town become responsible for basin maintenance (e.g. if/when the roads and stormwater infrastructure are conveyed to the Town).
- 23. It is our understanding that the Grafton Water District will review the as-built plans relative to the water utility (once this utility's information has been added to the

plans). If not already done, the project surveyor may wish to consult with the Grafton Water District relative to their required as-built plan content.

24. An updated set of as-built plans containing necessary plan revisions will need to be submitted for review. We suggest that at that time, draft acceptance plans (showing the rights-of-way, open spaces and any easements intended to be conveyed to the Town) and legal descriptions should also be submitted for review.

Additional Comments, February 14, 2019

Acceptance (Road Layout) Plans

- 25. The title of the plan set only refers to High Point Drive; Pepperbush Court must also be identified in the title or the title could refer to the project High Point Estates.
- 26. The plans have signature spaces for the Grafton Planning Board. GEI understands that the signature block should reference the Grafton Zoning Board of Appeals.
- 27. Plans formerly submitted to the Town will need to be stamped by the project surveyor.
- 28. The legend needs to include the symbol for drill holes (e.g. drill holes in stone walls).
- 29. GEI has not performed a detailed review of the acceptance plans, the Grant of Easements and the Grant of Open Space. Customarily, such a submittal would consist of the as-built plans, the acceptance plans and draft metes and bounds descriptions of the rights-of-way and easements that are intended to be conveyed to the Town. Draft metes and bounds descriptions were not submitted. Whereas GEI understands the developer recently received input from the Grafton Planning Department concerning the Determination of Completeness process, GEI would like the opportunity to meet with Town staff relative to procedures and our scope-of-work for reviewing this project's Determination of Completeness documents before commencing a detailed review.
- 30. GEI requests that documents to be reviewed by our office be submitted in hard copy format. One set of the documents will be sufficient.

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,

Graves Engineering, Inc.

Jeffrey M. Walsh, P.E.

Principal

Cc: Robert Berger, Grafton Building Inspector
Joe Laydon, Grafton Town Planner
Grafton Conservation Commission
Brian Szczurko, Grafton Engineering Department
Paul Cournoyer, Grafton DPW
Patrick C. Garner Co.; Patrick C. Garner Co., Inc.
Peter Hingorani, Adams Road Company
Tim Barlow, Barlow Construction



Grafton Conservation Commission

GRAFTON MEMORIAL MUNICIPAL CENTER 30 PROVIDENCE ROAD GRAFTON, MASSACHUSETTS 01519

Phone: (508) 839-5335 ext. 1138 FAX: (508) 839-4602 www.grafton-ma.gov • concom@grafton-ma.gov

		n Wetlands Protection Bylaw & Regulations		40	Rev. 5/16
69379		Western P. A. D. Company	ct Location:	High Point Estates	Pg. 1 of 2
0.		Assess	sor's Map #:	Lo	ot #:
3591	То:	Peter Hingorani Addres		nt Joy Drive ery, MA 01876	9
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High Foint Jr.		X Partial Certification: It is hereby certified to regulated by the above-referenced Grafton satisfactorily completed. The project areas released from this Grafton Wetlands Bylaw Atlached, the "Construct "Review of Draff As-Budetail the remaining was	n Wetlands By s or work that v Permit are:	ylaw Permit have been thave been completed	n d and are
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	3	Ongoing Conditions: The following condition 2019 0002886 Bk: 60227 Pg: 327 Page: 1 of 14 04/02/2019 0	38	nit shall continue:	
U	neens of i	t is responsible for ensuring that this Certificate of C the Land Court for the district in which the land is loc containing the registry bar code label to the Conserv.	cated. After r	ecording submit a co	try

The Permit was recorded in:

Book: 39935

Page: 1 & 16



Grafton Conservation Commission

GRAFTON MEMORIAL MUNICIPAL CENTER 30 PROVIDENCE ROAD GRAFTON, MASSACHUSETTS 01519

Phone: (508) 839-5335 ext. 1138 • FAX: (508) 839-4602 www.grafton-ma.gov • concom@grafton-ma.gov

Form 8B Pg. 2 of 2

Grafton Wetlands Permit #:	449	Project Location:	High Point Estates
Issued by:	Grafton Conservation	n Commission	
Date of Issuance:	3/21/19		
Signatures:	•		
	1les		DM/fin
	Alex		Helen Cheney
A Certificate of Compliance mu	st be signed by a major.	ity of the Conservatior	Commission.

February 14, 2019

Zoning Board of Appeals Town of Grafton 30 Providence Road Grafton, MA 01519



100 GROVE ST. | WORCESTER MA 01605

508-856-0321

F 508-856-0357

gravesengineering.com

Subject:

High Point Estates (Adams Road Trust) Construction Completeness Review

Dear Board Members:

As requested, Graves Engineering, Inc. (GEI) performed site visits through January 12, 2019 to evaluate construction completeness at the High Point Estates 40B residential subdivision located off Adams Road. This letter addresses construction-related issues only. The review of as-built plans, acceptance plans and legal descriptions is being addressed separately.

Lot development is still in progress. The top course of road payement was placed on High Point Drive and Pepperbush Court on November 23, 2016. Other finish surfaces (i.e. loam and seed, riprap, etc.) are being placed as lot development occurs.

This letter is a follow-up to our previous construction completeness review letter dated November 20, 2017. For clarity, comments from our previous letter are *italicized* and our comments to the applicant's responses are depicted in **bold**. Previous comment numbering has been maintained.

GEI previously issued a construction status letter on February 22, 2017. Our February 22, 2017 letter was prepared without the benefit of a detailed walk-through of the site. Since February 2017, progress has been made to address issues identified in that letter. This (November 20, 2017) construction completeness letter was prepared based upon a thorough investigation of the site and consultation with Grafton DPW staff. GEI and Grafton DPW were diligent in evaluating construction completeness with the intention of providing a comprehensive analysis of their findings. However, as the developer proceeds with executing the work described herein and completing lot development, should additional conditions be discovered that warrant action by the developer, GEI and Grafton DPW reserve the right revise the following list of items.

Work to be done by the developer:

- GEI addressed the preparation of as-built plans, acceptance plans and legal descriptions in a separate review letter dated February 22, 2017. Issues presented in the February 22, 2017 review letter need to be addressed.
 No further comment necessary.
- 2. Install the remaining nine bounds not yet confirmed by GEI as being installed or assist GEI in confirming that these nine bounds have been installed. GEI identified the specific bounds to the project surveyor.

 Installation of eight of the nine bounds has been confirmed. The remaining point not confirmed as being marked with a bound or other acceptable survey marker

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Is the point at the northwest corner of the site along the sideline of Adams Road on the property line separating the open space and n/f Massoni. The as-built plan notes a ½" diameter rebar and the project surveyor informed me that the rebar had been set by a surveyor for the abutting property owner. Nonetheless we were not able to locate this rebar; its existence needs to be confirmed or a bound needs to be set.

- 3. Finish the installation of street lights and street trees.
 As of December 22, 2018, the street lights had been installed but the following street lights were still not in service; across from #65 High Point Drive, at the intersection of High Point Drive and Pepperbush Court, at the Pepperbush Court cul-de-sac and the light near #18 High Point Drive. One street tree still needs to be planted at Lot 52 once Lot 52 is developed.
- 4. In the new drain manhole at High Point Drive station 18+30+/- (near the intersection of Alder Court), cut back the pipe from the new catch basin that extends excessively long into the manhole, install four ladder rungs, build an invert channel and finish sealing around the new inlet pipe.

 Not addressed yet.
- Reseal around the 12" diameter outlet pipes and the 6" diameter inlet pipes in the two catch basins at Pepperbush Court station 1+91.
 Not addressed yet.
- 6. Remove debris (possibly mortar) on the invert shelf and in the invert channel in drain manhole DMH Q at Pepperbush Court station 1+79.

 The manhole will be opened and this work will be confirmed concurrent with the developer's work to address the preceding comment.
- 7. Replace the broken cascade catch basin grate and install it in the correct direction at High Point Drive station 31+50+/- left.

 Not addressed yet.
- 8. Reinstall the hood that became dislodged and fell in catch basin at High Point Drive station 36+58 right.

 A silt sack was in the catch basin and installation of the hood couldn't be confirmed. The work will be confirmed after use of the silt sack is no longer necessary.
- 9. An off-road catch basin was added at High Point Drive station 38+00+/- (on Lot 52). The following needs to be done: fill the sattlement around the catch basin, cut the trees and brush around the catch basin in what will be the drain easement, stabilize any disturbed ground surfaces, remove roots growing through the "pick holes" inside the catch basin and seal the pick holes with mortar. Also, an easement will need to be created for the catch basin.

The work outside the catch basin has not been addressed yet. A silt sack was in the catch basin and work within the catch basin couldn't be confirmed. The work will be confirmed after use of the silt sack is no longer necessary.

- 10. Seal the opening around the inlet pipe in the drain manhole at High Point Drive station 38+40+/- that receives runoff from the off-road catch basin.

 Not addressed yet.
- 11. Replace the broken catch basin grate in Adams Road on the northern side of the intersection of High Point Drive. The grate has been broken since its installation in Not addressed yet.
- 12. Locate end raise to finish grade the manhole frames and covers for DMH L and DMH K located in the "boulevard" entrance. Both covers appeared to be buried in the landscaping islands.

 Not addressed yet.
- 13. Locate and raise to finish grade the manhole frames and covers for DMH X5, X6, X7 and X8 located adjacent to Basin 4 and cut the brush growing in the drainage easement. These covers appeared to be buried or lost in the vegetation.

 Not addressed yet.
- 14. Re-establish permanent vegetative cover around the new drop inlet at the intersection of High Point Drive and Alder Court (excavation recently occurred and the inlet grate was lowered). Inside the drop inlet, the pipes need to be cut back (they extend too far into the structure) and the spaces around the inlet pipes need to be re-sealed with mortar.

 Permanent cover has been re-established around the new drop inlet. Work within the drop inlet has not been addressed vet.
- 16. Remove stockpilled rock from behind the "Tot Lot" and re-stabilize disturbed surfaces. The stockpilled rock has been removed. Rocks that rolled into the woods will have to be removed and the disturbed area still needs to be permanently stabilized.
- 16. Patch High Point Drive sidewalk asphalt where the drain line was recently installed from Arrowwood Court.

 Work was in progress on December 14, 2018 concurrent with other work on Arrowwood Court.
- 17. Fill the settlement/depression in the ground at the top of the inlet weir at the triple culverts at High Point Drive station 3+60+/- left and stabilize the ground surface.
- 18. Place top course asphalt on two of the common driveways. GEI understands that this work will be executed as lot development is completed along each common driveway. Arrowwood Court top course paving was in progress on December 14, 2018.
- 19. GEI walked the trails on the project. Please refer to Sheet 17 of the plans for trail locations. The perimeter trail from Lot 14 to Basin 4 (behind Lot 48) was satisfactory except for the section behind Lot 44 and possibly the section near Basin 4. It appeared that the trail hadn't been constructed across the rear of Lot 44. Vegetation needs to be cut across the back of Lot 44 from the Lot 43 property line to the Lot 45 property line. Near Basin 4 the trail appeared to drift off the project parcel and onto abutting

land owned by the Town of Grafton. GEI defers to the Zoning Board of Appeals if the trail's encroachment (possibly ten feet or less onto the abutting property) needs to be addressed.

There have been no changes to the trails. At a minimum, the trail across the rear of Lot 44 needs to be constructed.

20. The trail on Lots 55 and 56 is too steep perpendicular to the direction of travel and has a boulder retaining wall in the way near High Point Drive. At the rear of Lots 55 and 56, a pedestrian must walk down (or up) a boulder retaining wall that is approximately four feet high. On the property line of Lots 69 and 70, there is a stone retaining wall approximately 3.5 feet high approximately 100 feet long that appears to run along the center of the trail easement. GEI suggests that the developer and GEI walk the trails with the appropriate approving authority(ies) to determine if there are unacceptable impediments relative to use of the trails.

GEI understands that the developer discussed this issue with the Zoning Board of Appeals and that the developer was to submit a plan of proposed trail modifications prior to their implementation. No modifications have been made to the trails and GEI is not aware of any plans having been submitted.

- 21. Determine with the Fire Department if a street name sign is needed at the intersection of High Point Drive/High Point Drive to identify the right-side portion of High Point Drive (when driving into the project). Install such a sign if it's determined to be needed.

 GEI is not aware whether the developer has solicited input from the Fire Department.
- 22. Permanently stabilize all disturbed surfaces and where grass is to be utilized for stabilization and establish vigorous mature grass growth. For example, limited areas within the right of ways haven't yet received loam and seed placement, the Cape Cod berm along the right side of Pepperbush Court needs to be backed-up with loam and seeded from High Point Drive to the catch basin at station 1+91, and sediment deposited in the right-of-way from Lot 27 development needs to be removed and the area permanently stabilized.

The berm along Pepperbush Court has been stabilized with loam and seed. A retaining wall was constructed at Lot 27 and the steep slope above the retaining wall was stabilized with riprap. The disturbed area up gradient of the riprap consisted of bare soil as of December 14, 2018. Erosion from Lot 48 (an undeveloped lot) is being deposited on the northeast corner of the access way for Basin 4. In short, permanent stabilization is a work in progress as lot development occurs. Any ongoing erosion needs to be addressed as soon as possible on a temporary basis until permanent stabilization can be achieved.

23. Remove any accumulated sediment from the stormwater basins or other drainage infrastructure, permanently re-stabilize any disturbed surfaces and install/re-install forebay check dams. Accumulated sediment at the inlet to Basin 2 is up to the tops of the inlet pipes, and excessive sediment is present at the inlets to Basin 1 and Basin 4. The sediment accumulation at Basin 4 begins approximately filteen feet into the basin from the flared end section. The riprap aprons may need to be supplemented or replaced after the sediment is removed.

Accumulated sediment was removed from Basin 2. Sediment still needs to be removed from Basin 1 and Basin 4. The developer needs to confirm all riprap

aprons and forebay check dams at the basin inlets are in place and install any found to be missing.

- 24. After sediment is removed from the inlet to Basin 2, the up-gradient drainage lines that discharge to the basin need to be jet-cleaned. The pipe from the nearby-swale to Basin 2 needs to be cleaned and the drain lines from DMH I (adjacent to High Point Drive) to DMH H-1 (next to Basin 2) and from DMH H-1 to Basin 2 will need to be cleaned. The pipes in DMH H-1 are ¾ full of sediment. This appears to have been addressed, but GEI could not confirm cleaning of the drain line between DMH I and DMH H-1. The invert of DMH H-1, the drain line from DMH H-1 to Basin 2 and the pipe between the nearby swale and Basin 2 had been cleaned.
- 25. Remove sediment at the bottom of the access road to Basin 4, regrade the lower section of the access road (the lower 20 to 30 feet of the access road is too steep) and stabilize any disturbed surfaces. Not addressed yet. Also, on Lot 48 erosion is now occurring on the access road to Basin 4. Any ongoing erosion needs to be addressed as soon as possible on a temporary basis until permanent stabilization can be achieved.
- 26. Remove erosion control barriers (e.g. silt fence at Basin 2) wherever erosion control barriers are no longer needed.

 This will have to be addressed as areas are permanently stabilized. Silt fence is still in place at Basin 2.
- 27. Stabilize areas up-gradient of Lot 76 (existing house), remove deposited sediment on and near Lot 76 and permanently stabilize disturbed and/or un-stabilized areas. Stormwater runoff that flows lowerd Lot 76 needs to be directed around the south side of the pool house.

 This has not been addressed yet. GEI understands that an enforcement order was issued by the Grafton Building Department. GEI has recently been assisting the Building Department with review of plans proposing modifications to address this issue.
- 28. Obtain a Gertificate of Compliance and record it at the Worcester District Registry of Deeds for any Order(s) of Conditions issued by the Grafton Conservation Commission for construction of the roads or road-related infrastructure.

 GEI understands that the applicant requested a Certificate of Compliance. Some of the required work cited herein is also applicable to the project's Order of Conditions.
- 29. The catch basins were cleaned in or about December 2016. The developer is responsible for continued road and road-related infrastructure maintenance (e.g. catch basin cleaning, street sweeping, stormwater basin maintenance) and repairs until the roads are accepted as public ways.

 No further comment necessary.
- 30. The developer should be aware that the Grafton Subdivision Rules and Regulations have specific requirements relative to Determination of Completeness for subdivision projects. This process differs from and occurs in advance of soliciting the Town to accept the road and road-related infrastructure. It not already done, the developer

should make himself aware of the Determination of Completeness process and should direct any questions to the Zoning Board of Appeals, the Board having permitting and administration jurisdiction for 40B projects.

No further comment necessary.

Additional Comments, February 14, 2019

31. As observed during periods of cold weather, groundwater and/or stormwater seepages (i.e. slow steady prolonged flow) that are discharging to sidewalks and the road are freezing, causing ice formation and slippery conditions. The seepages need to be addressed to eliminate the ice formation. GEI observed such conditions on the sidewalk in front of 80 High Point Drive (adjacent to Arrowwood Court) and on the sidewalk on the down-gradient side of the 3 Pepperbush Court driveway. A subdrain was installed along the south side of Arrowwood Court; groundwater seepage was occurring on the north side of Arrowwood Court even after the subdrain was installed. GEI has also been advised of seepage from Lot 27 (48 High Point Drive) that impacted Myrtle Court and High Point Drive but did not observe that seepage and Icing condition firsthand.

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,

Graves Engineering, Inc.

Jeffrey M. Walsh, P.E.

Principal

Cc: Robert Berger, Grafton Building Inspector
Joe Laydon, Grafton Town Planner
Grafton Conservation Commission
Brian Szczurko, Grafton Engineering Department
Paul Cournoyer, Grafton DPW
Peter Hingorani, Adams Road Company
Tim Barlow, Barlow Construction
Patrick C. Garner, Patrick C. Garner Co., Inc.

February 14, 2019

Zoning Board of Appeals Town of Grafton 30 Providence Road Grafton, MA 01519



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gravesengineering.com

High Point Estates (Adams Road Trust)

Review of Draft As-Built Plans

Dear Board Members:

Subject:

We received the following documents November 6, 2018:

- Plans entitled As-Built Lot Layout, High Point Estates Subdivision, Grafton, Massachusetts dated December 15, 2016, prepared by Patrick C, Garner Co., Inc.
- Plans enlitled Road Layout Plans, High Point Drive dated October 15, 2018, prepared by Patrick C. Garner Co., Inc. (5 sheets).

We also received the following documents November 7, 2018 via e-mail:

- Document entitled Grant of Easements. (3 pp)
- Plan entitled Plan Modifying Subd. Easements, High Point Estates, Grafton, MA dated March 13, 2017, prepared by Patrick C. Garner Co., Inc. (1 sheet)

We also received the following documents November 9, 2018 via e-mail:

Document entitled Grant of Open Space. (3 pp)

We also received the following on December 14, 2018:

E-mail from Trust Corp. with 18 attachments.

In advance of the formal submittel of as-built plans, Graves Engineering, Inc. (GEI) was requested to review the draft as-built plans for compliance with Rules and Regulations Governing the Subdivision of Land, Grafton, Massachusetts and for substantial conformance with the approved plans and approved plan modifications. GEI issued its first review letter on February 22, 2017.

This letter is a follow-up to our previous draft as-built plan review letter dated February 22, 2017. For clarity, comments from our previous letter are Italicized and our comments to the applicant's responses are depicted in bold. Previous comment numbering has

Our comments follow:

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As-Built Plan Review

The as-built plans were not revised; the plan set received on November 6, 2018 is the same plan set we received on December 21, 2016 which was the subject of our February 22, 2017 review letter. No revisions have been made to address the following comments:

- 1. The as-built plans must be revised to include the water infrastructure (water mains, in-line valves and hydrants), subdrains, underground and above-ground electric/CATV/telephone utilities infrastructure and house numbers (we recommend that the lot numbers already on the plans remain in place). These features can be surveyed (where accessible) and/or compiled from available sources of information (e.g. contractor, utility companies). GEI can provide the project surveyor with information pertaining to subdrain locations. (SR&R §3.3.11.2.e)
- To be consistent with other subdivisions in Grafton, the as-built plans need to be revised to include street trees and topography (record topography only) within the rights-of-way.
- 3. Road stationing needs to be provided on Sheets 2 5 so that information on the profile sheets can be viewed in coordination with the plan-view sheets and vice verse.
- 4. The as-built plans show the light poles and fixtures at all of the proposed locations (according to the proposed Street Lights plan, dated February 14, 2006 and last revised March 28, 2006 prepared by Patrick C. Gamer Co., Inc.). As of GEI's last sile visit on December 22, 2016, all of the light poles and fixtures have not been installed.
- 5. Based upon a meeting that I attended with Town staff and the ZBA Chairman on January 23, 2017, the as-built plans need to show any walls, driveways, planted trees and any other infrastructure and/or obstacles that encroach onto easements or the Open Space. The as-built plans currently don't show any encroachments but need to be revised to show such encroachments. We understand that a retaining wall encroaches into the drain easement on Lot 3 (#94 High Point Drive), a retaining wall encroaches into the Open Space access easement on Lot 55 (#11 High Point Drive) and it has been reported that a driveway encroaches onto the Open Space (location unknown to GEI). There may be other encroachments.
- The as-bullt plans must be revised to include spillway elevations for Basin 1, Basin 2, Basin 4, Basin 5 and the Rear Detention Basin.
- 7. On Sheet 1 at the north side of the property along the chain link fence that abuts the Massachusetts Turnpike, the line whose bearing is "S81°34'59.51"E>" appears to have an incorrect length label of "1473.78". Also, the boundary point on the west end of this line needs to be labeled.
- 8. On Sheet 1, along the front property line for Lot 61 there is a distance labeled 196.12. This distance does not appear to be correct (based upon scaling of the submitted draft as-built plan). The plans must be revised accordingly.

7

- On Sheet 1, the following bearings and distances were missing but need to be provided. The plans must include all bearings and distances.
 - a. The bearing and distance for property line that borders Westborough (roughly 210 feet long).
 - b. The bearings and distances along the north and south edges of the 15' wide Open Space access easement that passes through Lots 16 and 20 from Alder Gourt to the Open Space.
 - c. The bearings and distances along the north and south edges of Alder Court (an Open Space access easement) that passes through Lots 15, 16, 17, 18, 19 and 20.
 - d. The Open Space easement lines, distances and bearings at the northwest corner of Lot 14 and on the adjacent Open Space. We understand that these missing easements were part of the 20-foot wide access easement to Lot 14 and the Open Space.
 - e. The bearings and distances along the north and south edges of Arrowwood Court (an Open Space access easement) that passes through Lots 10, 11, 12 and 13.
- f. The distance on the eastern edge of the twenty (20) foot drain easement that passes through Lot 10.
- g. The distance on the western edge of the twenty (20) foot drain easement that is on Lot 1 adjacent to the Lot 2 property line.
- 10. On Sheet 1, the drain easements at the rear of Lots 41, 42, 43, 44 and 45 were not shown. On the construction plans, these easements were originally ten feet wide. The easement on Lot 41 was further revised by way of a construction plan last revised August 5, 2008 to be 25 feet wide as measured from the southern property line and at various widths up to approximately 50 feet wide as measured from the western property line. Similarly, on Sheet 10 the ten-foot wide easements at the rear of Lots 42 and 43 were not shown on the "Detail of Swale & Rear Detention Basin" inset; these easements are needed to allow access around the stormwater swale that is now located within the Open Space. Also, potential access from the Winterberry Court common driveway easement needs to be addressed. Based upon construction plans last revised August 5, 2008, we understand that the access and utility easement was extended to Winterberry Court. Natther Sheet 1 nor Sheet 10 show this easement to Winterberry Court. However, physical access may exist from Pepperbush Court via the "Tot Lot".
- 11. On Sheet 1, the drain easement along the southern side of Lots 34, 40 and 41 was labeled as "20" Drain Easement" but was drawn as being ten feet wide. We understand that the easement was intended to be a ten (10) foot wide drain easement. The drain easement's label must be revised.
- 12. On Sheet 1, the drain easement at the rear of Lots 2 4 was labeled as being 20 feet wide but is actually 25 feet wide; the label needs to be revised.
- 13. On Sheet 2, elevations need to be shown for the inlet inverts of the triple box culverts and for the inlet well crest.
- 14. On Sheets 3 and 4, the lines for the sidewalks need to be deleted where the sidewalks cross the paved portions of the common driveways.

- 15. On Sheet 4 the rim of "MHX1" was labeled as "Rim=4453.12". This appears to be a typographical error but must be revised nonetheless.
- 16. On Sheet 5, the drop inlet that was installed on Lot 52 and connected to drain manhole "AA2" and its connecting pipe need to be shown on the plan along with pertinent information (e.g. elevations, pipe slope, pipe diameter).
- 17. On Sheet 7, the label for "MH C" must include the missing inlet invert elevations for the catch basins connected to this manhole.
- 18. On Sheet 10, there is an inconsistency between the detail of Basin 4 and the layout of the drainage pipes to Basin 4 as shown on Sheet 4. Sheet 10 shows a manhole downstream of "MHX5" before the drainage pipe enters Basin 4. This additional manhole was not shown on the layout view on Sheet 4. If there is a manhole installed (as shown on Sheet 10) the pertinent information (rim and invert elevations) must be provided and the manhole must be included on Sheet 4. If there is not a manhole, as shown on Sheet 10, then Sheet 10 must be revised.
- 19. On Sheet 10, there are two topographic contours labeled as "483" with leader notes on the "Detail of Swale & Rear Detention Basin" inset. One of these 483 contours was also labeled on Lot 42 as "484" and the other 483 contour lies into the dashed line that represents the 10' Wide Access Drive" on the Open Space (southeast of the detention basin). The line work needs to be corrected and the labels updated as necessary.
- 20. On Sheet 10, the scale labels for the various insets need to be checked and revised as necessary. Most of the labeled scales appear to be incorrect (e.g. were plotted at 1" = 40' but were labeled as 1" = 20'. Also, on the inset for Basin 4, the easement lines were not drawn to create 20-foot and 40-foot easements (on Lots 48 and 49) as labeled on the inset; the easement lines need to be revised.
- 21. The plans don't show fences at the four stormwater basins. Per correspondence from the Grafton Conservation Commission to Peter Hingorani dated July 21, 2016, after consulting with Grafton Department of Public Works, the requirement for installing these fences under MassDEP File #164-602 (Order of Conditions) and Grafton Wellands Permit WP #449 was eliminated. We defer to the Zoning Board of Appeals it it has the same or a differing position under the Comprehensive Permit relative to not installing fences at these locations. Sheets 18 20 of the construction plans had shown fences.
- 22. We defer to the Zoning Board of Appeals (who may wish to consult with Special Town Counsel) whether the stormwater basins (or portions thereof) located on Open Space will require easements. Our concern is if the Open Space parcels are not conveyed to the Town, the Town may not have the ability to enter onto the Open Space for the purpose of accessing the stormwater basins should the Town become responsible for basin maintenance (e.g. if/when the roads and stormwater infrastructure are conveyed to the Town).
- 23. It is our understanding that the Grafton Water District will review the as-built plans relative to the water utility (once this utility's information has been added to the

- plans). If not already done, the project surveyor may wish to consult with the Graffon Water District relative to their required as-built plan content.
- 24. An updated set of as-built plans containing necessary plan revisions will need to be submitted for review. We suggest that at that time, draft acceptance plans (showing the rights-of-way, open spaces and any easements intended to be conveyed to the Town) and legal descriptions should also be submitted for review.

Additional Comments, February 14, 2019

Acceptance (Road Layout) Plans

- 25. The title of the plan set only refers to High Point Drive; Pepperbush Court must also be identified in the title or the title could refer to the project High Point Estates.
- 26. The plans have signature spaces for the Grafton Planning Board. GEI understands that the signature block should reference the Grafton Zoning Board of Appeals.
- 27. Plans formerly submitted to the Town will need to be stamped by the project surveyor.
- 28. The legend needs to include the symbol for drill holes (e.g. drill holes in stone walls).
- 29. GEI has not performed a detailed review of the acceptance plans, the Grant of Easements and the Grant of Open Space. Customarily, such a submittal would consist of the as-built plans, the acceptance plans and draft metes and bounds descriptions of the rights-of-way and easements that are intended to be conveyed to the Town. Draft metes and bounds descriptions were not submitted. Whereas GEI understands the developer recently received input from the Grafton Planning Department concerning the Determination of Completeness process, GEI would like the opportunity to meet with Town staff relative to procedures and our scope-of-work for reviewing this project's Determination of Completeness documents before commencing a detailed review.
- 30. GEI requests that documents to be reviewed by our office be submitted in hard copy format. One set of the documents will be sufficient.

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,

Graves Engineering, Inc.

Jeffney M. Walsh, P.E.

Principal

Cc: Robert Berger, Grafton Building Inspector Joe Laydon, Grafton Town Planner Grafton Conservation Commission Brian Szczurko, Grafton Engineering Department Paul Cournoyer, Grafton DPW Patrick C. Garner Co., Inc.

Peter Hingorani, Adam's Road Company





Katrina Koshivos <koshivosk@grafton-ma.gov>

Re: High Points Estates

1 message

Katrina Koshivos ≺koshivosk@grafton-ma.gov> To: Matt Pearson <graftonh20@aol.com>

Mon, Dec 17, 2018 at 9:05 AM

Matt,

Thank you,

Katrina Koshivos Town of Grafton Zoning Board of Appeals 30 Providence Road Grafton, MA 01519

508-839-5335 ext. 1154

On Mon, Dec 17, 2018 at 7:23 AM <graftonh20@act.com> wrote:

Consider this e-mail verification that High Points Estates off Adams Road, has met all the conditions imposed by the Grafton Water District for acceptance of the roadway by

Matthew Pearson, Manager **Grafton Water District**

RECEIVED

DEC 17 2018

Zoning Board of Appeals



BOARD OF HEALTH

GRAFTON MEMORIAL MUNICIPAL CENTER **30 PROVIDENCE ROAD GRAFTON, MASSACHUSETTS 01519** (508) 839-5335 x1119 (508) 839-8559 FAX

healthdept@grafton-mu.gov

HEALTH DEPARTMENT

March 27, 2020

TO:

Tim Barlow

FROM:

Philip Leger, R.S. 1/2(ns)
Chief of Environmental Health & Response

RE:

High Point Acres Subdivision

The Health Department is satisfied with the subdivision relative to septic systems. Please let us know if you need any additional information.

11



TOWN OF GRAFTON

26 Lipson Street GRAFTON, MASSACHUSETTS 01519 Phone: (508) 839-4506 * FAX: (508) 839-8520

Wichael E. Gauthier
Five Chief

December 6, 2018

Adams Rd Company 51 Mount Joy Dr Tewkshury, MA 01876

Ref. Determination of Completeness

High Point Estates, North Grafton, MA

To Whom It May Concern:

All structures within this development are required to be equipped with a hardwire Fire Detection System and CO detection.

Fire Department compliance inspections for residential subdivisions are done for each structure at the time occupancy is requested for that building. These inspections include Street signs, House numbers, Fire Detection Systems (Smoke detectors, Heat detectors, and CO detectors) Oil Heating Systems, Propane Storage. A structure would not pass its occupancy inspection without all of the above being in place.

My inspection review of the finish conditions of the hydrant system shows that it appears to have been constructed according to plans that were approved and signed on 11/4/2006

This development has satisfied all Fire Department requirements.

Sincerely,

Stephen L Charest, Asst. Chief

tephen & Clearus

From: Barlow Building tbbuilding@aol.com
To: Peter Hingorani <TRUSTCORP@aol.com>

Subject: Grafton Fire sign off

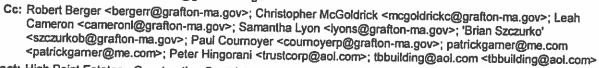
Date: Thu, Dec 13, 2018 3:33 pm Attachments: 2018-12-13 15-32.pdf (755K)

Sent with Genius Scan for iOS. https://dl.tglapp.com/genius-scan

Sent from my iPhone

From: Jeffrey Walsh < JWalsh@gravesengineering.com>

To: Katrina Koshivos <koshivosk@grafton-ma.gov>



Subject: High Point Estates - Construction Completeness and Draft As-Built Plans Review

Date: Wed, Mar 11, 2020 2:18 pm

Attachments: gzba031120constrcompl.pdf (3649K), gzba031120asbuiltaeeept.pdf (2792K)

Good afternoon Everyone,

I've been out to the High Point Estates a couple of times during the past month at the developer's request to observe work associated with construction completeness. Our office also reviewed revised draft asbuilt plans. Attached is a follow-up review letter relative to construction completeness and another concerning the as-built plans.

Please let me know if you have any questions concerning our review.

Respectfully submitted,

Jeff

JEFFREY M. WALSH, P.E.

Principal

GRAVES ENGINEERING, INC.

100 GROVE ST | WORCESTER, MA 01605

T 508-856-0321 ext 109 | F 508-856-0357

gravesengineering.com

March 11, 2020

Zoning Board of Appeals Town of Grafton 30 Providence Road Grafton, MA 01519



100 GROVE ST. | WORCESTER MA 01605

T 508-856-0321

F 508-856-0357

gravesengineering.com

Subject:

High Point Estates (Adams Road Trust) Construction Completeness Review

Dear Board Members:

As requested, Graves Engineering, Inc. (GEI) performed site visits through March 5, 2020 to evaluate construction completeness at the High Point Estates 40B residential subdivision located off Adams Road. During my February 21, 2020 and March 5, 2020 site visits I was accompanied by Tim Barlow of Barlow Construction. This letter addresses construction-related issues only. Review of the as-built plans, acceptance plans and legal descriptions is being addressed under separate cover.

Lot development is not finished. It is my understanding that three lots are still to be developed, and that there is an enforcement order in place issued by the Grafton Building Department that withholds building permits for those three lots. The top course of road pavement was placed on High Point Drive and Pepperbush Court on November 23, 2016. Other finish surfaces (i.e. loam and seed, riprap, etc.) were being placed as lot development occurred.

This letter is a follow-up to our previous construction completeness review letters dated November 20, 2017, February 14, 2019 and December 31, 2019. For clarity, comments from our previous letters are *italicized* and our latest comments to the applicant's responses are depicted in **bold**. For brevity, comments previously addressed by the applicant and acknowledged by GEI have been omitted. Previous comment numbering has been maintained.

GEI initially issued a construction status letter on February 22, 2017. Our February 22, 2017 letter was prepared without the benefit of a detailed walk-through of the site. Since February 2017, progress has been made to address issues identified in that letter. The series of construction completeness letters that began on November 20, 2017 were prepared based upon a thorough investigation of the site by GEI. Grafton DPW was consulted during construction completeness review that led to the issuance of our November 20, 2017 construction completeness letter. GEI and Grafton DPW were diligent in evaluating construction completeness with the intention of providing a comprehensive analysis of their findings. However, as the applicant proceeds with executing the work described herein and completing lot development, should additional conditions be discovered that warrant action by the applicant, GEI and Grafton DPW reserve the right to revise the following list of items.

Work to be done by the applicant:

 Install the remaining nine bounds not yet confirmed by GEI as being installed or assist GEI in confirming that these nine bounds have been installed. GEI identified the specific bounds to the project surveyor. February 14, 2019:

Installation of eight of the nine bounds has been confirmed. The remaining point not confirmed as being marked with a bound or other acceptable survey marker is the point at the northwest corner of the site along the sideline of Adams Road on the property line separating the open space and n/f Massoni. The as-built plan notes a ½" diameter rebar and the project surveyor informed me that the rebar had been set by a surveyor for the abutting property owner. Nonetheless we were not able to locate this rebar; its existence needs to be confirmed or a bound needs to be set.

December 31, 2019:

The rebar could not be found. Mr. Garner and I discussed the purpose of the bound with the abutting property owner. The applicant intends to set a bound at this location.

Acknowledged. A bound was set at this location.

3. Finish the installation of street lights and street trees.

February 14, 2019:

As of December 22, 2018, the street lights had been installed but the following street lights were still not in service: across from #65 High Point Drive, at the intersection of High Point Drive and Pepperbush Court, at the Pepperbush Court cul-de-sac and the light near #18 High Point Drive. One street tree still needs to be planted at Lot 52 once Lot 52 is developed.

December 31, 2019:

These four street lights and the street light installed by the applicant at the intersection of Adams Road and High Point Drive were not illuminated on the evening of December 19, 2019. The remaining street tree is to be planted when Lot 52 is developed.

The applicant recently changed the lighting fixtures on the street lights within the subdivision to LED (at Grafton DPW's request to be consistent with the Town's lighting fixture changeover to LED that is underway) and the developer is awaiting the electric company to connect power the four street lights that were not yet connected. The new fixture in front of #82 High Point Drive was on during my March 5, 2020 site visit – there may be a cap on the photocell that has to be removed. Per the developer, the street light on the utility pole at the intersection of Adams Road and High Point Drive was existing prior to the subdivision being constructed. The remaining street tree is to be planted when Lot 52 is developed.

9. An off-road catch basin was added at High Point Drive station 38+00+/- (on Lot 52). The following needs to be done: fill the settlement around the catch basin, cut the trees and brush around the catch basin in what will be the drain easement, stabilize any disturbed ground surfaces, remove roots growing through the "pick holes" inside the catch basin and seal the pick holes with mortar. Also, an easement will need to be created for the catch basin.

February 14, 2019:

The work outside the catch basin has not been addressed yet. A silt sack was in the catch basin and work within the catch basin couldn't be confirmed. The work will be confirmed after use of the silt sack is no longer necessary.

December 31, 2019:

The settlement around the catch basin had been filled and the area around the catch basin had new grass growth. Some trees were removed, but additional trees within ten feet of the catch basin also need to be removed. The catch basin inlet grate was clogged with leaves

and flooding around the catch basin has been reported. To avoid clogging, the catch basin inlet should be reconfigured as a drop inlet so that leaves can pass through the inlet. The inlet was changed to a drop inlet; the change is satisfactory. Additional trees had been removed. Grass seed was placed on the disturbed area; permanent grass cover will need to be established once the weather allows.

13. Locate and raise to finish grade the manhole frames and covers for DMH X5, X6, X7 and X8 located adjacent to Basin 4 and cut the brush growing in the drainage easement. These covers appeared to be buried or lost in the vegetation.

February 14, 2019: Not addressed yet.

December 31, 2019:

During construction the zigzag configuration between DMH X5 and Basin 4 was eliminated in favor of a straight pipe run to Basin 4. The pipe configuration is reasonable. The trees within the drain easement between DMH X5 and Basin 4 need to be removed.

The trees were removed and grass seed was placed on the disturbed areas. Permanent grass cover will need to be established once the weather allows.

15. Remove stockpiled rock from behind the "Tot Lot" and re-stabilize disturbed surfaces.

February 14, 2019:

The stockpiled rock has been removed. Rocks that rolled into the woods will have to be removed and the disturbed area still needs to be permanently stabilized.

December 31, 2019:

The disturbed area was stabilized. Rocks that rolled into the woods still have to be removed. Acknowledged. Rocks that rolled into the woods have been removed.

17. Fill the settlement/depression in the ground at the top of the inlet weir at the triple culverts at High Point Drive station 3+60+/- left and stabilize the ground surface.

February 14, 2019: Not addressed yet.

December 31, 2019:

Acknowledged. The settlement had been filled and the disturbed area was stabilized. Concern had been raised by others about the use of riprap for stabilization. The riprap was removed, the existing grades were re-established, and grass seed and turf matting were placed for stabilization. Permanent grass cover will need to be established once the weather allows.

19. GEI walked the trails on the project. Please refer to Sheet 17 of the plans for trail locations. The perimeter trail from Lot 14 to Basin 4 (behind Lot 48) was satisfactory except for the section behind Lot 44 and possibly the section near Basin 4. It appeared that the trail hadn't been constructed across the rear of Lot 44. Vegetation needs to be cut across the back of Lot 44 from the Lot 43 property line to the Lot 45 property line. Near Basin 4 the trail appeared to drift off the project parcel and onto abutting land owned by the Town of Grafton. GEI defers to the Zoning Board of Appeals if the trail's encroachment (possibly ten feet or less onto the abutting property) needs to be addressed.

February 14, 2019:

There have been no changes to the trails. At a minimum, the trail across the rear of Lot 44 needs to be constructed.

December 31, 2019:

The trail across the rear of Lot 44 needs to be constructed.

Acknowledged. Correction, the trail was proposed on the open space behind Lot 44, not on Lot 44. The trail was recently constructed. The trail from behind Lot 44 to Basin 4 was relocated to stay within the open space.

20. The trail on Lots 55 and 56 is too steep perpendicular to the direction of travel and has a boulder retaining wall in the way near High Point Drive. At the rear of Lots 55 and 56, a pedestrian must walk down (or up) a boulder retaining wall that is approximately four feet high. On the property line of Lots 69 and 70, there is a stone retaining wall approximately 3.5 feet high approximately 100 feet long that appears to run along the center of the trail easement. GEI suggests that the developer and GEI walk the trails with the appropriate approving authority(ies) to determine if there are unacceptable impediments relative to use of the trails.

February 14, 2019:

GEI understands that the developer discussed this issue with the Zoning Board of Appeals and that the developer was to submit a plan of proposed trail modifications prior to their implementation. No modifications have been made to the trails and GEI is not aware of any plans having been submitted.

December 31, 2019:

The developer constructed a trail crossing at the rear of Lots 55 and 56 without first submitting a plan of proposed trail modifications prior to their implementation. At a minimum, the riprap trail surface is unsuitable. GEI is not aware of modifications having been made to the other trails. Again, the developer is to submit a plan of proposed trail modifications prior to their implementation.

The portions of the trail at the front of Lot 55 and on the open space behind Lot 55 were reconstructed with ramps consisting of riprap in-filled with smaller stone. I found these portions of the trail to be easier to use than they were in their former condition. GEI defers final approval of the trail system to the Zoning Board of Appeals.

21. Determine with the Fire Department if a street name sign is needed at the intersection of High Point Drive/High Point Drive to identify the right-side portion of High Point Drive (when driving into the project). Install such a sign if it's determined to be needed.

December 31, 2019:

GEI is not aware whether the developer has solicited input from the Fire Department. Acknowledged. The applicant provided GEI with a letter issued by the Fire Department dated December 6, 2018 indicating that development has satisfied all Fire Department requirements.

22. Permanently stabilize all disturbed surfaces and where grass is to be utilized for stabilization and establish vigorous mature grass growth. For example, limited areas within the right of ways haven't yet received loam and seed placement, the Cape Cod berm along the right side of Pepperbush Court needs to be backed-up with loam and seeded from High Point Drive to

the catch basin at station 1+91, and sediment deposited in the right-of-way from Lot 27 development needs to be removed and the area permanently stabilized.

February 14, 2019:

The berm along Pepperbush Court has been stabilized with loam and seed. A retaining wall was constructed at Lot 27 and the steep slope above the retaining wall was stabilized with riprap. The disturbed area up-gradient of the riprap consisted of bare soil as of December 14, 2018. Erosion from Lot 48 (an undeveloped lot) is being deposited on the northeast corner of the access way for Basin 4. In short, permanent stabilization is a work in progress as lot development occurs. Any ongoing erosion needs to be addressed as soon as possible on a temporary basis until permanent stabilization can be achieved.

December 31, 2019:

Except for establishing permanent vegetative cover at the three undeveloped lots, there are no known issues associated with establishing permanent stabilization.

Areas of recent work had been loamed and seeded where needed. Permanent grass cover will need to be established once the weather allows.

23. Remove any accumulated sediment from the stormwater basins or other drainage infrastructure, permanently re-stabilize any disturbed surfaces and install/re-install forebay check dams. Accumulated sediment at the inlet to Basin 2 is up to the tops of the inlet pipes, and excessive sediment is present at the inlets to Basin 1 and Basin 4. The sediment accumulation at Basin 4 begins approximately fifteen feet into the basin from the flared end section. The riprap aprons may need to be supplemented or replaced after the sediment is removed.

February 14, 2019:

Accumulated sediment was removed from Basin 2. Sediment still needs to be removed from Basin 1 and Basin 4. The developer needs to confirm all riprap aprons and forebay check dams at the basin inlets are in place and install any found to be missing.

December 31, 2019:

This is a work in progress. Sediment certainly needs to be removed from Basin 4. The developer needs to confirm that all basins are free from sediment accumulations, confirm that all riprap aprons and forebay check dams at the basin inlets are in place, and install any riprap aprons or forebay check dams determined to be missing.

Acknowledged. Sediment had recently been removed from Basin 1, Basin 2 and Basin 4 and forebay checks dams were installed where they were found to be missing.

24. After sediment is removed from the inlet to Basin 2, the up-gradient drainage lines that discharge to the basin need to be jet-cleaned. The pipe from the nearby-swale to Basin 2 needs to be cleaned and the drain lines from DMH I (adjacent to High Point Drive) to DMH H-1 (next to Basin 2) and from DMH H-1 to Basin 2 will need to be cleaned. The pipes in DMH H-1 are ¾ full of sediment.

February 14, 2019:

This appears to have been addressed, but GEI could not confirm cleaning of the drain line between DMH I and DMH H-1. The invert of DMH H-1, the drain line from DMH H-1 to Basin 2 and the pipe between the nearby swale and Basin 2 had been cleaned.

Per my discussion with Mr. Barlow, the drain line will be cleaned, if it needs cleaning, concurrent with the upcoming spring cleaning of the catch basins and the cleaning of

this drain line will be confirmed by me and him when we confirm the catch basin cleaning.

26. Remove erosion control barriers (e.g. silt fence at Basin 2) wherever erosion control barriers are no longer needed.

February 14, 2019:

This will have to be addressed as areas are permanently stabilized. Silt fence is still in place at Basin 2.

December 31, 2019:

The removal of erosion control barriers has not been confirmed yet.

Per my discussion with the developer, the erosion control barriers have been removed except where needed – at Basin 4 and at the uncompleted house lots. I did not check the entire site, but I didn't see any unnecessary erosion control barriers in place at the sections of the site that I visited on February 21, 2020 and March 5, 2020.

27. Stabilize areas up-gradient of Lot 76 (existing house), remove deposited sediment on and near Lot 76 and permanently stabilize disturbed and/or un-stabilized areas. Stormwater runoff that flows toward Lot 76 needs to be directed around the south side of the pool house.

February 14, 2019:

This has not been addressed yet. GEI understands that an enforcement order was issued by the Grafton Building Department. GEI has recently been assisting the Building Department with review of plans proposing modifications to address this issue.

Areas upgradient of Lot 76 have been stabilized. Plans proposing drainage modifications on Lot 76 have been submitted and reviewed. Work to address sediment removal on Lot 76 and drainage modifications on Lot 76 has not been executed.

28. Obtain a Certificate of Compliance and record it at the Worcester District Registry of Deeds for any Order(s) of Conditions issued by the Grafton Conservation Commission for construction of the roads or road-related infrastructure.

December 31, 2019:

GEI understands that the applicant requested a Certificate of Compliance. Some of the required work cited herein is also applicable to the project's Order of Conditions. GEI defers to the Conservation Commission concerning the issuance of an Certificate of Compliance.

29. The catch basins were cleaned in or about December 2016. The developer is responsible for continued road and road-related infrastructure maintenance (e.g. catch basin cleaning, street sweeping, stormwater basin maintenance) and repairs until the roads are accepted as public ways.

No further comment necessary.

30. The developer should be aware that the Grafton Subdivision Rules and Regulations have specific requirements relative to Determination of Completeness for subdivision projects. This process differs from and occurs in advance of soliciting the Town to accept the road and road-related infrastructure. If not already done, the developer should make himself aware of the Determination of Completeness process and should direct any questions to the Zoning Board of Appeals, the Board having permitting and administration jurisdiction for 40B projects.

No further comment necessary.

Additional Comments, February 14, 2019

31. As observed during periods of cold weather, groundwater and/or stormwater seepages (i.e. slow steady prolonged flow) that are discharging to sidewalks and the road are freezing, causing ice formation and slippery conditions. The seepages need to be addressed to eliminate the ice formation. GEI observed such conditions on the sidewalk in front of 80 High Point Drive (adjacent to Arrowwood Court) and on the sidewalk on the down-gradient side of the 3 Pepperbush Court driveway. A subdrain was installed along the south side of Arrowwood Court; groundwater seepage was occurring on the north side of Arrowwood Court even after the subdrain was installed. GEI has also been advised of seepage from Lot 27 (48 High Point Drive) that impacted Myrtle Court and High Point Drive but I did not observe that seepage and icing condition firsthand.

December 31, 2019:

No seepage was observed on December 19, 2019 or December 24, 2019. The situation will continue to be monitored during the winter of 2019 – 2020.

The site was checked periodically during the winter of 2019-2020 and the formation of ice was not observed; albeit there was little snowfall this winter. Mr. Barlow felt that the source of water to the High Point Drive sidewalk was not groundwater but was surface water (e.g. stormwater runoff or snow melt) that was captured in the riprap that is present along the north side of Arrowwood Court and passed out of the riprap and onto the ground surface where the riprap ends at the High Point Drive sidewalk. I don't dispute that this could be the situation.

I was informed that between my site visits of February 21, 2020 and March 5, 2020, the developer performed mitigating measures on the north side of Arrowwood Court adjacent to the High Point Drive sidewalk. It was reported to me that this area was excavated until the end of a perforated pipe that crosses Arrowwood Court was found. The pipe was reported to have been installed when the subdrain along the south side of Arrowwood Court was installed. As explained to me, after the pipe and its bedding stone were found, the cap was left intact on the end of the pipe and the excavation was backfilled with crushed stone (small riprap) to the ground surface, thereby creating a hydraulic connection between the location at which water entered onto the High Point sidewalk and the catch basin in High Point Drive where the subdrain discharges.

The intention to capture water from the north side of Arrowwood Court and convey it via pipe to the catch basin in High Point Drive is reasonable. However, I can neither confirm nor reject that this mitigation will address the water seepage and icing conditions that were observed almost a year ago. Time will tell if the mitigation works.

I will suggest that a test could be performed to simulate the seepage conditions and to better understand whether a hydraulic connection now exists between the point of seepage and the High Point Drive catch basin. This test alone should not be considered confirmation that the mitigation is adequate. The test would require the developer to obtain approval to connect to a fire hydrant. Using a hose, water could be discharged to the Arrowwood Court pavement such that it flows to the north side of Arrowwood Court. The potential for water to discharge onto the High Point Drive sidewalk could be monitored and the flow into the catch basin via the subdrain could be measured to differentiate the test flow from the existing subdrain flow generated

along the south side of Arrowwood Court. If such a test is to be performed, it should be witnessed by me and by a representative of Grafton DPW. Even if such a test is conducted, the Town would be best served by monitoring the area during winter conditions similar to those conditions experienced about a year ago.

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,

Graves Engineering, Inc.

Jeffrey M. Walsh, P.E.

Principal

Cc: Robert Berger, Grafton Building Inspector Christopher McGoldrick, Grafton Town Planner Grafton Conservation Commission

Brian Szczurko, Grafton Engineering Department

Paul Cournoyer, Grafton DPW

Peter Hingorani, Adams Road Company

Tim Barlow, Barlow Construction

Patrick C. Garner; Patrick C. Garner Co., Inc.



From: Jeffrey Walsh < JWalsh@gravesengineering.com>
To: Katrina Koshivos < koshivosk@grafton-ma.gov>

Cc: Robert Berger bergerr@grafton-ma.gov; Christopher McGoldrick mcGoldrickc@grafton-ma.gov; Leah Cameron cameronl@grafton-ma.gov; Patrickgarner@me.com cameronl@grafton-ma.gov; Patrickgarner@me.com patrickgarner@me.com; Peter Hingorani TRUSTCORP@aol.com; Tim Barlow cameronl@grafton-ma.gov; Patrickgarner@me.com cameronl@grafton-ma.gov; Patrickgarner@me.com; Patrickgarner@me.com; Patrickgarner@me.com

Subject: High Point Estates

Date: Thu, Apr 30, 2020 6:39 pm

Attachments: gzba043020asbuiltacept.pdf (3610K)

Hello Everyone,

I hope you're all doing well through the pandemic.

Attached is our latest as-built plan, acceptance plan and legal description review letter for High Point Estates.

Respectfully submitted,

Jeff

JEFFREY M. WALSH, P.E.

Principal

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April 30, 2020

GRAVES ENGINEERING, Inc.

100 GROVE ST. | WORCESTER MA 01605

Zoning Board of Appeals Town of Grafton 30 Providence Road Grafton, MA 01519

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Subject:

High Point Estates (Adams Road Trust)

Review of Draft As-Built Plans, Acceptance Plans and Legal Descriptions

Dear Board Members:

We received the following documents on March 18, 2020 via email:

- Draft document entitled "Grant of Roads," undated, with metes and bounds descriptions of High Point Drive and Pepperbush Court.
- Draft document entitled "Grant of Easements," undated, with metes and bounds descriptions
 of nine (9) foot-passage easements identified in sections 1a 1i and six (6) drainage
 easements identified in sections 2a 2f.

We received the following documents on March 26, 2020 via email:

- Correspondence from Adams Road Company LLC to Grafton Zoning Board of Appeals, undated, re: "Request for Town Acceptance of Subdivision Roads and Infrastructure at Spring Town Meeting, 2020 and Release of Bond."
- Document entitled "Grant of Open Space," undated, with metes and bounds description of three open space parcels.

We received the following documents on March 31, 2020:

 Sheets 2, 3, 4, 5 and 10 of a ten-sheet set of as-built plans dated December 15, 2016 and last revised March 30, 2020, prepared by Patrick C. Garner Co., Inc. (5 sheets).

We received the following documents on April 24, 2020:

 Plans entitled <u>Road Layout Plans</u>, <u>High Point Drive and Pepperbush Court</u> dated October 15, 2018 and last revised April 22, 2020, prepared by Patrick C. Garner Co., Inc. (5 sheets).

In advance of the formal submittal of as-built plans, acceptance plans and legal descriptions, Graves Engineering, Inc. (GEI) was requested to review the draft documents for compliance with Rules and Regulations Governing the Subdivision of Land, Grafton, Massachusetts and for substantial conformance with the approved plans and approved plan modifications. GEI issued its first review letter on February 22, 2017.

This letter is a follow-up to our previous draft as-built plan review letters dated February 22, 2017, February 14, 2019, December 31, 2019 and March 11, 2020. For clarity, comments from our previous letters are *italicized* and our latest comments to the project surveyor's responses

are depicted in **bold**. For brevity, comments previously addressed by the project surveyor and acknowledged by GEI have been omitted. Previous comment numbering has been maintained.

Our comments follow:

As-Built Plan Review

 The as-built plans must be revised to include the water infrastructure (water mains, in-line valves and hydrants), subdrains, underground and above-ground electric/CATV/telephone utilities infrastructure and house numbers (we recommend that the lot numbers already on the plans remain in place). These features can be surveyed (where accessible) and/or compiled from available sources of information (e.g. contractor, utility companies). GEI can provide the project surveyor with information pertaining to subdrain locations. (SR&R §3.3.11.2.e)

December 31, 2019

The as-built plans have been revised to show the location of the water mains, hydrants and some in-line valves, but the pipe material was not identified and valves are missing at the intersection of Highpoint Drive and Pepperbush Court and at the intersection of High Point Drive and Adams Road. Electric and CATV infrastructure were added to the plans. Subdrains were added at Arrowwood Court and Alder Court but are still missing from High Point Drive and Pepperbush Court; GEI will assist with identifying the subdrain locations along High Point Drive and Pepperbush Court. House numbers were added to Sheet 1 but still need to be added to Sheets 2 – 5 and to applicable details on Sheet 10.

March 11, 2020:

The valves and subdrains were added to the plans. However, the waterline pipe material is still missing and house numbers on Sheets 3 - 5 are incomplete (e.g. see Lots 18, 19, 20, 39 - 43, 52).

Acknowledged. Sheets 3 - 5 were revised to include the above-referenced information.

2. To be consistent with other subdivisions in Grafton, the as-built plans need to be revised to include street trees and topography (record topography only) within the rights-of-way.

December 31, 2019

Street trees were added to the as-built plans. Topography still needs to be added to the plans (added to Sheets 2-5).

March 11, 2020:

Street topography was added to the plans. However, the topography is difficult to follow in many locations.

 There is a mix of ten-foot contour intervals and two-foot contour intervals. The contour intervals need to be consistent throughout the plans. To be prepared as other Grafton projects, two-foot intervals need to be used.

This was not addressed. There is still a mix of ten-foot contour intervals (e.g. Sheets 2, 3 and most of Sheet 5) and two-foot contour intervals (Sheet 4 and High Point Drive station 31+50 to 32+50 on Sheet 5). Two-foot contour intervals need to be used.

- There is a mix of wide-gray lines and narrow black lines; the line-type needs to be consistent.
 - Acknowledged. The lines were revised and are consistent.
- The contours need to be adequately labeled; there is only one contour label on Sheet 3 (near station 13+80).
 - Acknowledged. Contour labels were added.
- On Sheet 4, the contour at station 28+60+/- was labelled "480" but by working down from the 490 contour at station 27+50+/-, the "480" label should be "482".
 Acknowledged. The contours and labels between stations 26+00 and 30+00 were revised.
- Any elevation labels need to clearly identify the contour to which they're associated. On Sheet 4, at station 22+20+/- there is a "510" elevation label but no contour nearby.
 Acknowledged. The locations of contour labels were adjusted where necessary.
- 4. The as-built plans show the light poles and fixtures at all of the proposed locations (according to the proposed Street Lights plan, dated February 14, 2006 and last revised March 28, 2006 prepared by Patrick C. Garner Co., Inc.). As of GEI's last site visit on December 22, 2016, all of the light poles and fixtures have not been installed.

December 31, 2019

The lights were shown as originally proposed and don't account for changes to light pole locations during construction. On Sheet 2, the light at the southeast corner of the intersection of Adams Road and High Point Drive is in the wrong location; the light was installed on a utility on the west side of the intersection. The lights shown at Lots 23, 45 and 51 are not present in those locations and a light is missing from the vicinity of Lot 47.

March 11, 2020:

The light poles have been revised to reflect present conditions except on Sheet 2. The light pole was relocated on the plan. However, the light is now shown at the northeast corner of the intersection of Adams Road and High Point Drive; a light is only located on a utility on the west side of the intersection. Furthermore, on Sheet 10 in the inset for "Expanded Adams Rd Width" two streetlights are shown on the east side of the intersection where streetlights weren't installed.

Acknowledged. Sheets 2 and 10 were revised accordingly.

18. On Sheet 10, there is an inconsistency between the detail of Basin 4 and the layout of the drainage pipes to Basin 4 as shown on Sheet 4. Sheet 10 shows a manhole downstream of "MHX5" before the drainage pipe enters Basin 4. This additional manhole was not shown on the layout view on Sheet 4. If there is a manhole installed (as shown on Sheet 10) the pertinent information (rim and invert elevations) must be provided and the manhole must be included on Sheet 4. If there is not a manhole, as shown on Sheet 10, then Sheet 10 must be revised.

December 31, 2019

Sheet 10 has been revised to eliminate the manhole between MHX5 and Basin 4 and elevation labels were added for the manhole. The pipe invert elevations for the manhole show that the outlet elevation is the same as the inlet elevation but as observed during our

site visit on December 24, 2019 the manhole has a drop between the inlet and the outlet pipes. The pipe elevations need to reflect said drop.

March 11, 2020:

No revisions were made.

The invert elevation labels were not revised. The labels show similar elevations: 416.64 feet (inlet) and 416.49 feet (outlet). As observed at the site on December 4, 2019, the drop is many feet. The pipe elevations need to reflect said drop.

- 21. The plans don't show fences at the four stormwater basins. Per correspondence from the Grafton Conservation Commission to Peter Hingorani dated July 21, 2016, after consulting with Grafton Department of Public Works, the requirement for installing these fences under MassDEP File #164-602 (Order of Conditions) and Grafton Wetlands Permit WP #449 was eliminated. We defer to the Zoning Board of Appeals if it has the same or a differing position under the Comprehensive Permit relative to not installing fences at these locations. Sheets 18 20 of the construction plans had shown fences.
 No further comment.
- 22. We defer to the Zoning Board of Appeals (who may wish to consult with Special Town Counsel) whether the stormwater basins (or portions thereof) located on Open Space will require easements. Our concern is if the Open Space parcels are not conveyed to the Town, the Town may not have the ability to enter onto the Open Space for the purpose of accessing the stormwater basins should the Town become responsible for basin maintenance (e.g. if/when the roads and stormwater infrastructure are conveyed to the Town).

No further comment.

23. It is our understanding that the Grafton Water District will review the as-built plans relative to the water utility (once this utility's information has been added to the plans). If not already done, the project surveyor may wish to consult with the Grafton Water District relative to their required as-built plan content.

No further comment.

24. An updated set of as-built plans containing necessary plan revisions will need to be submitted for review. We suggest that at that time, draft acceptance plans (showing the rights-of-way, open spaces and any easements intended to be conveyed to the Town) and legal descriptions should also be submitted for review.

December 31, 2019

Draft acceptance plans dated October 15, 2018 were submitted and were the subject of the following review comments #25 - #29. Revised acceptance plans were not submitted with the latest set of revised as-built plans.

March 11, 2020:

Revised acceptance plans were not submitted with the latest set of as-built plans (as-built plans last revised January 20, 2020).

Legal descriptions and revised acceptance plans were submitted as noted on page 1. Review comments are provided below.

Additional Comments, February 14, 2019

Acceptance (Road Layout) Plans

- 25. The title of the plan set only refers to High Point Drive; Pepperbush Court must also be identified in the title or the title could refer to the project High Point Estates.

 Acknowledged. The title was revised on Sheets 1 and 4.
- 26. The plans have signature spaces for the Grafton Planning Board. GEI understands that the signature block should reference the Grafton Zoning Board of Appeals.
 Acknowledged. The plans were revised to reference the Grafton Zoning Board of Appeals.
- 27. Plans formerly submitted to the Town will need to be stamped by the project surveyor. Acknowledged. The revised plans include the surveyor's stamp and signature.
- 28. The legend needs to include the symbol for drill holes (e.g. drill holes in stone walls).

 Acknowledged. The legend was revised to include references to drill holes found and drill holes set in stone walls.
- 29. GEI has not performed a detailed review of the acceptance plans, the Grant of Easements and the Grant of Open Space. Customarily, such a submittal would consist of the as-built plans, the acceptance plans and draft metes and bounds descriptions of the rights-of-way and easements that are intended to be conveyed to the Town. Draft metes and bounds descriptions were not submitted. Whereas GEI understands the developer recently received input from the Grafton Planning Department concerning the Determination of Completeness process, GEI would like the opportunity to meet with Town staff relative to procedures and our scope-of-work for reviewing this project's Determination of Completeness documents before commencing a detailed review.

December 31, 2019

GEI met with Town staff. Draft metes-and-bounds descriptions need to be submitted for rights-of-way and easements that the developer desires to convey to the Town. The acceptance plans and metes-and-bounds descriptions need to include all easements desired to be conveyed to the Town (e.g. easements shown on the approved plans) and any approved changes to easements (e.g. the elimination of the fire cistern easements on Lot 61 and on the Open Space next to Lot 1, elimination of the drainage easement on Lots 50 and 51, and the reconfiguring of drainage and access easements on Lot 48 between High Point Drive and Basin 4).

GEI performed additional cursory review of the acceptance plans entitled "Road Layout Plans, High Point Drive" dated October 15, 2018. We noted the following:

- A. Access easements associated with the open space were missing at Lots 14, 15 and 20. The plans were revised to include these easement lines; however, the metes and bounds are incomplete. Any parcel, easement or open space that is to be conveyed to the Town needs to be fully described by metes and bounds.
- B. Viburnum Court was extended across Lots 58 and 66 to the Open Space.

 Acknowledged. The layout of Viburnum Court was revised to be consistent with the approved plans.

- C. Drainage easements were missing from the rear of Lots 48 and 49.

 Easement lines that run parallel to the rear lot lines of Lots 48 and 49 were added to Sheet 5 but metes and bounds were not added. Any parcel, easement or open space that is to be conveyed to the Town needs to be identified on the plans and fully described by metes and bounds.
- D. Bounds installed to delineate easements and the Open Spaces were missing from the plans.

Acknowledged. Bounds were added to the plans; the plans appear to be in order.

E. The plans are missing many of the metes and bounds for the property lines between the Open Spaces and the lots.

The plans were revised to include a few of the missing metes and bounds. However, for the plans to be complete relative to the Open Space, additional metes and bounds need to be added (e.g. at Lot 8 rear lot line, at the Open Space perimeter from Lot 10 to Lot 33, at the side lot line at Lot 34, at the Open Space perimeter from Lot 41 to Lot 50).

The recently submitted draft Grant of Open Space references a plan at Worcester District Registry of Deeds Plan Book 850, Plan 64. This plan is missing open space metes and bounds along Adams Road north of High Point Drive and at the northwest corner of the project at the rear lot line of n/f Skowronek and Tombari. In GEI's opinion, the acceptance plans should include a complete labeling of the Open Space metes and bounds in order to create a complete record of project information and reflecting modifications approved during the construction phase of the project. GEI respectfully defers to the Zoning Board of Appeals and/or Special Town Counsel for affirmation of said opinion.

F. There is a signature block for the Planning Board instead of the Zoning Board of Appeals.

Acknowledged. The signature blocks were revised to reference the Grafton Zoning Board of Appeals.

G. The signature block labeled "Layout by: Board of Selectmen" needs to be revised to "...by: Select Board."

Acknowledged. The signature block label was revised.

- H. The acceptance plans do not include an access and utility easement on Lots 40 and 41 that was proposed on plans entitled Trench Detail, Lots 40 45 & Compensatory Storage Details dated July 25, 2005 and last revised December 13, 2007. This easement was to provide access to a stormwater basin that was proposed as a modification to the approved plans. The applicant needs to identify who will be the responsible party for maintenance of the stormwater basin on Lot 41 and how the responsible party will access the basin.
- 30. GEI requests that documents to be reviewed by our office be submitted in hard copy format. One set of the documents will be sufficient.

December 31, 2019

Unless agreed upon otherwise, a complete set of documents must be submitted for review rather submitting the documents piecemeal so that a comprehensive review of the project's documents can be performed.

No further comment.

Additional As-Built Plan Review Comments, December 31, 2019

34. On Sheet 5, there appear to be two lots labeled "58" and there is overlapping text on what presumably is Lot 59 that needs to be revised for legibility.

March 11, 2020:

No revisions were made.

Acknowledged. Sheet 5 was revised accordingly.

35. The material and sizes of the pipes for the culvert at station 3+75+/- need to be identified.

March 11, 2020:

No revisions were made.

Acknowledged. Upon further review, the (box) culvert material and sizes were presented on Sheet 10 in the "Basin 5 High Point Dr Intersection" inset.

Additional Comments, April 30, 2020

- 36. The acceptance plans and legal descriptions should include the amount of land area (in acres or square feet, as appropriate) for each right-of-way, parcel or easement intended to be conveyed to the Town.
- 37. On Sheet 3 of the Road Layout Plans, the lines that delineate the access easement on Lots 69 and 70 were omitted from the latest version of the plans.
- 38. On Sheet 1 of the Road Layout Plans, the lot number labels for Lots 29, 30 and 31 were assigned to different lots than the approved plans. These new lot numbers are inconsistent with the Grant of Open Space. The lot numbers need to be corrected where necessary for consistency among the various project documents and the Grafton Assessor's maps.
- 39. On Sheet 4, the drainage easement line on Lot 48 that runs parallel with the rear property line needs to be added.
- 40. Legal descriptions were provided for Fern Court, Myrtle Court, and Viburnum Court. These are common driveways that only provide access to house lots. It is GEI's understanding that rights to common driveways are not expected to be conveyed to the Town and therefore these legal descriptions should be removed. If it is determined that Viburnum Court is not intended to provide access to the stormwater basin on Lot 41 then its description should also be removed.
- 41. Legal descriptions need to be provided for the 20-foot wide drainage easement located at the rear of Lot 49 and for the 15-foot wide access easement that runs along the eastern sideline of Lot 49. It is GEI's understanding that these easements were not eliminated when the drain easement on Lot 48 was widened.

- 42. The legal description of the drain easement located at the property line between Lots 48 and 49 needs to be revised from 20 feet wide to 50 feet to reflect the changes approved when the access to Basin 4 was modified.
- 43. The rights-of-way legal descriptions follow the rights-of-way centerlines instead of the rights-of-way sidelines. This is unusual and should be discussed among GEI, Town staff and Special Town Counsel to obtain an opinion whether the centerline method is acceptable for the Town's needs.
- 44. The Open Space Parcel 1 legal description is missing many property line lengths; the description only references many lines in general terms (e.g. "... thence proceeding northerly along the rear property lines of Lots 33, 31, 26, 25, 20, 20, 15 and 14..."). It is GEI's understanding that each line length needs to be adequately described. Likewise, the other open space legal descriptions need to include all line or arc lengths.
- 45. The Open Space legal descriptions do not include bearings for lines, and radii and the designation "along a curve to the left" or "along a curve to the right" for arcs. It is GEI's understanding that such information is needed.
- 46. The description for Open Space Parcel 1 shows a distance of 2,380.98 feet along the Massachusetts Turnpike right-of-way, however, based upon scaling and dimensions on the approved plans, the distance is 1,940.33 feet. The distance on the legal description needs to be re-checked.
- 47. In the middle of the Open Space Parcel 1 description, the line running along a stone wall whose length is 80.77 feet needs to be corrected to 60.77 feet.
- 48. On the Arrowwood Court open space access easement description, the distance of the course running N 56° 54' 02" E need to be re-checked. The distance is 106.88 feet in the description but was drawn approximately 110 feet on the approved plans.
- 49. The last course (32.16 feet) of the Alder Court open space access easement needs to be corrected from an arc to a tangent and the bearing needs to be provided.
- 50. The bearing of the two courses N(S) 27°19'38" W(E) on the Lot 41 drainage easement needs to be rechecked. The acceptance plans show a bearing of 19°19'38".
- 51. On the Lots 1 7 drainage easement description, the bearing of the courses that cross Lot 3 need to be revised from 50°... to 52°...
- 52. On the Lots 9 and 10 drainage easement description, the bearing of the two courses that cross Lot 10 need to be revised from ...09'... to 19'...

We trust this letter addresses your review requirements. Feel free to contact this office if you have any questions or comments.

Very truly yours,

Graves Engineering, Inc.

Jeffrey M. Walsh, P.E.

Principal

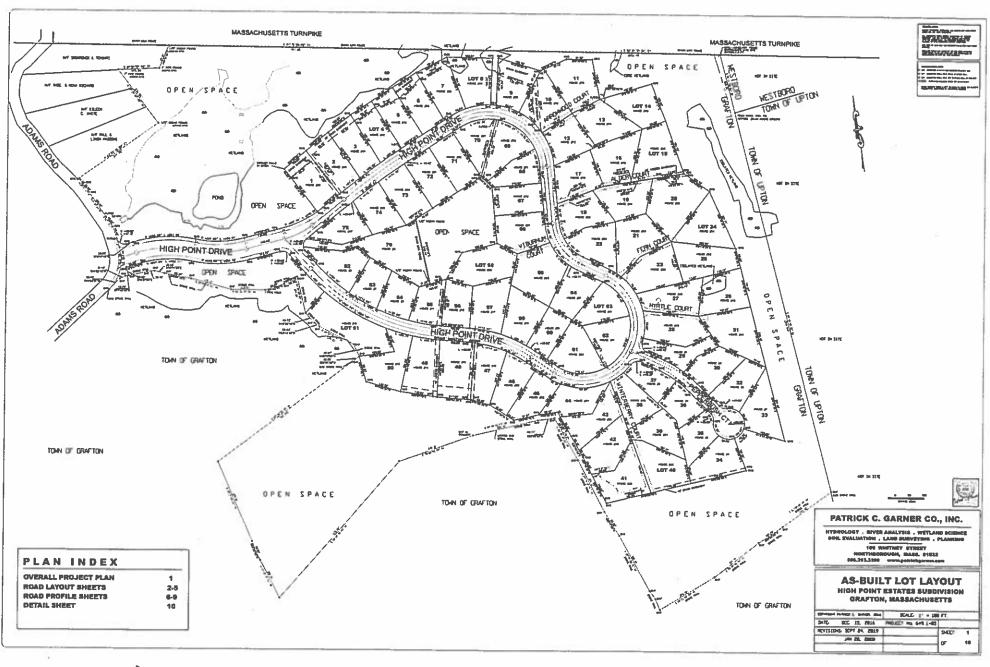
Cc: Robert Berger, Grafton Building Inspector Christopher McGoldrick, Grafton Town Planner

Grafton Conservation Commission

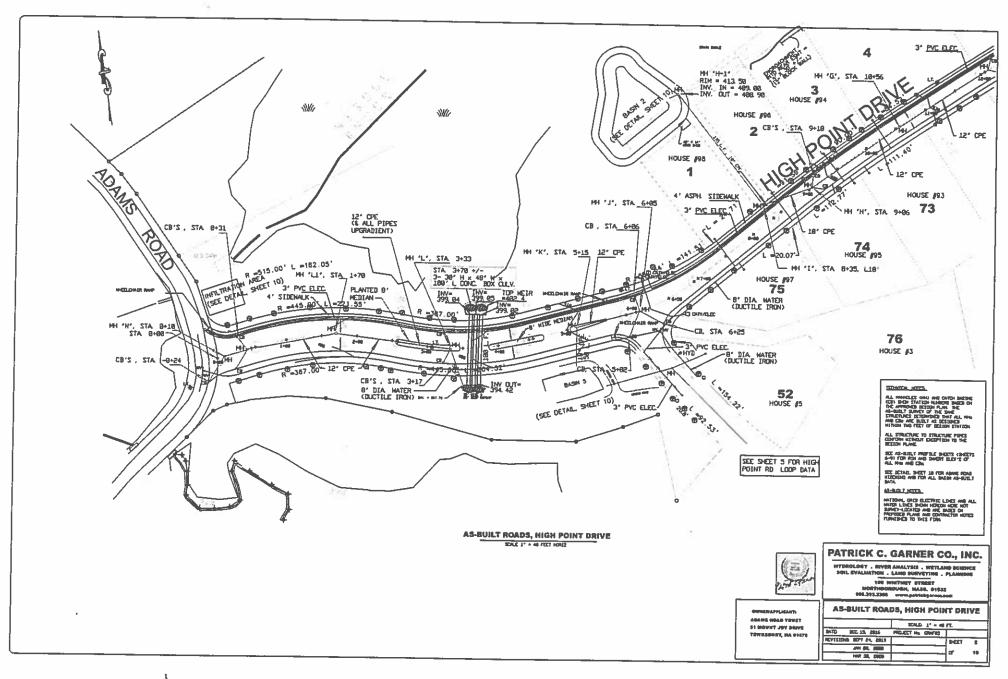
Brian Szczurko, Grafton Engineering Department Paul Cournoyer, Grafton DPW

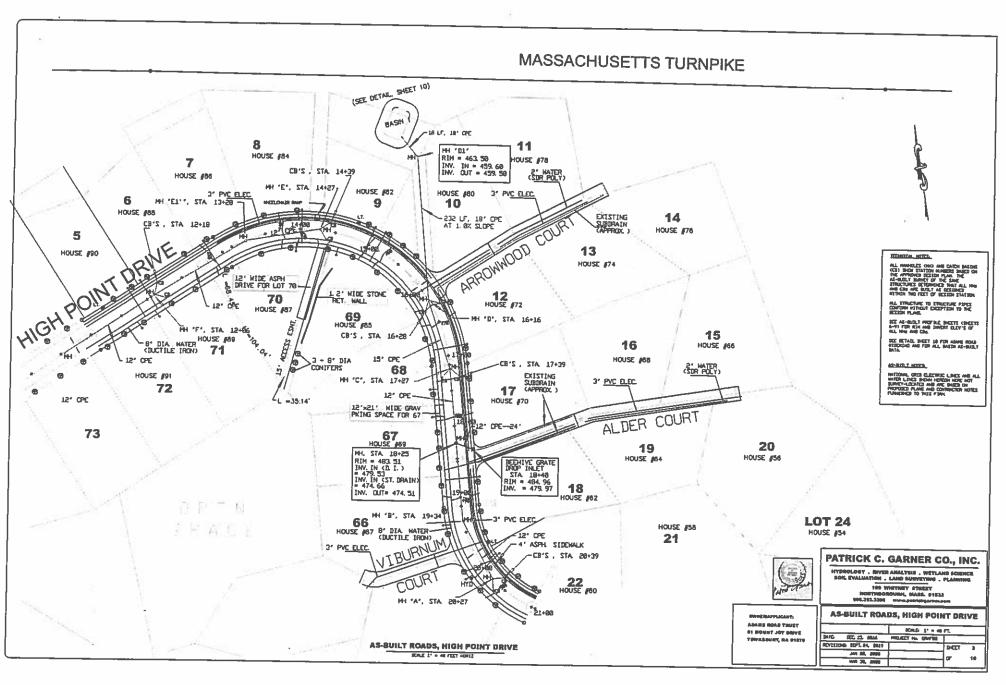
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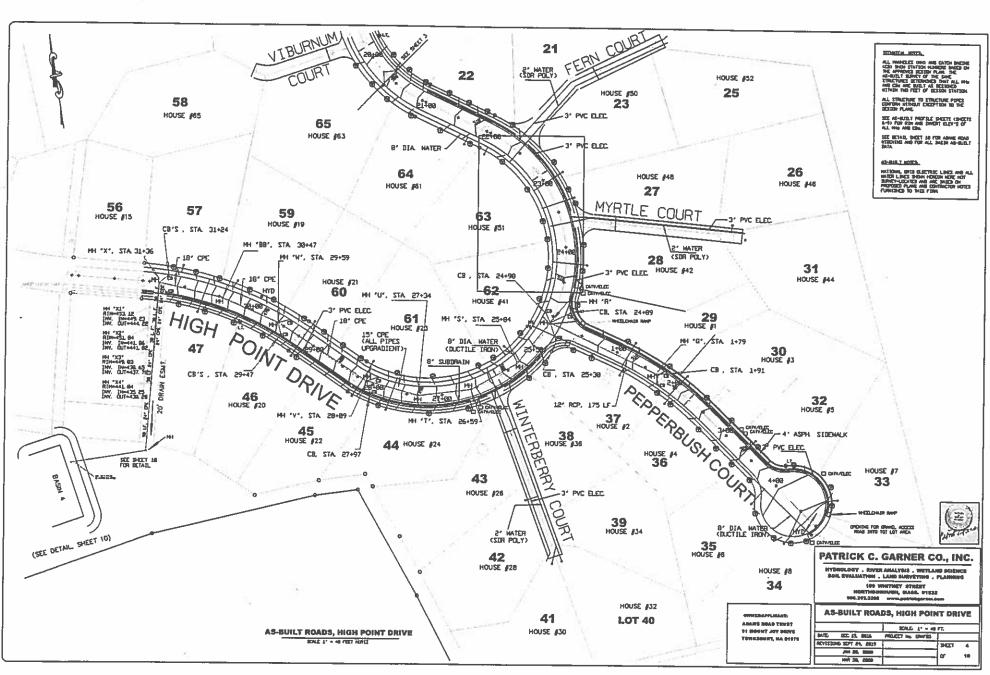


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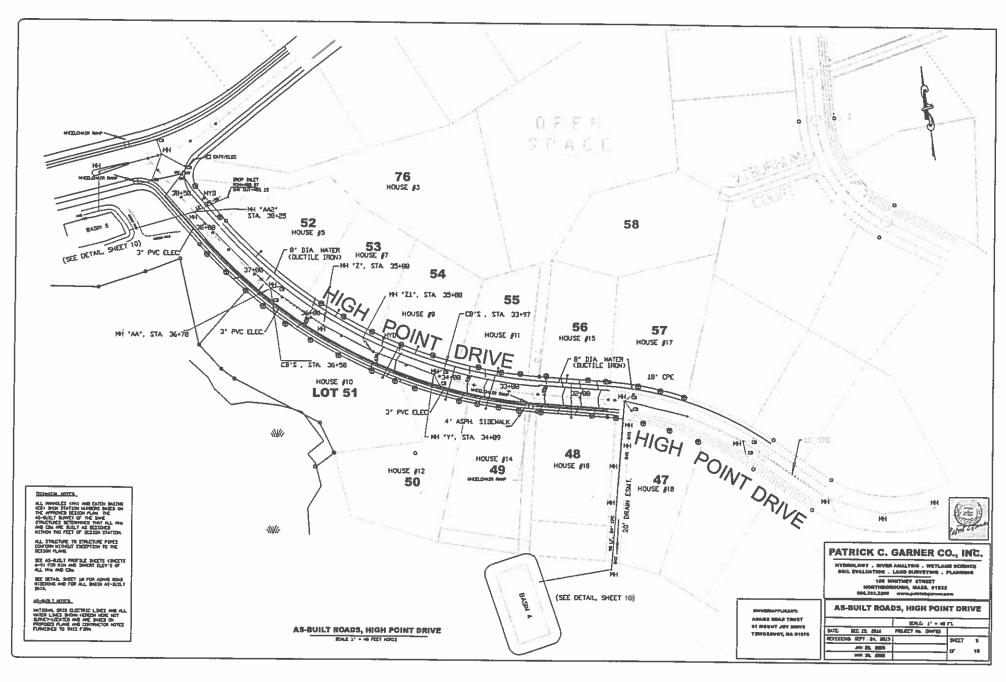




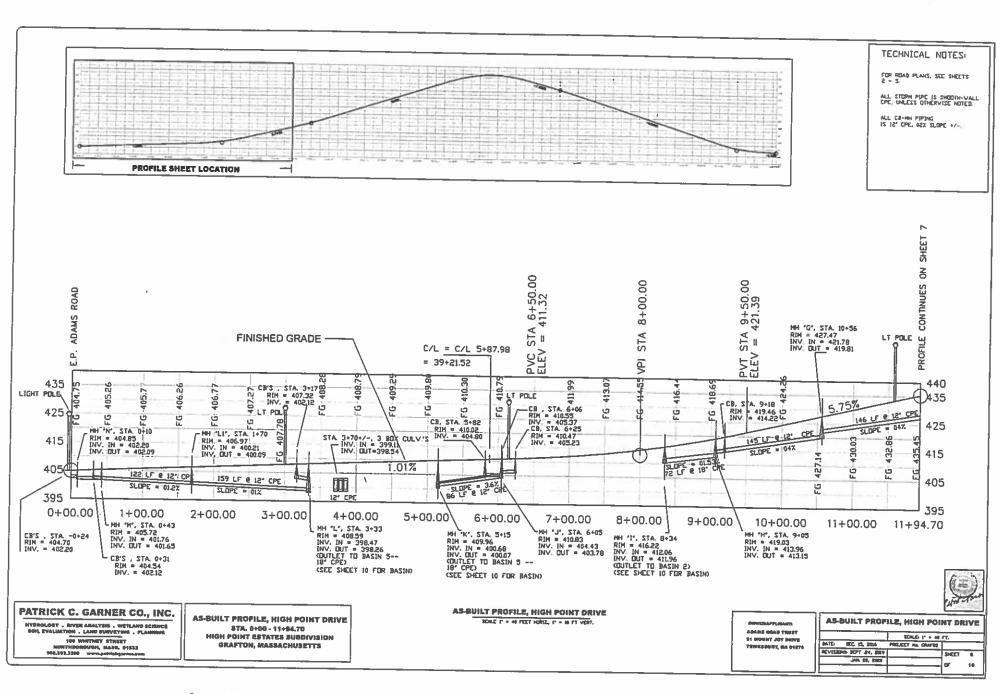
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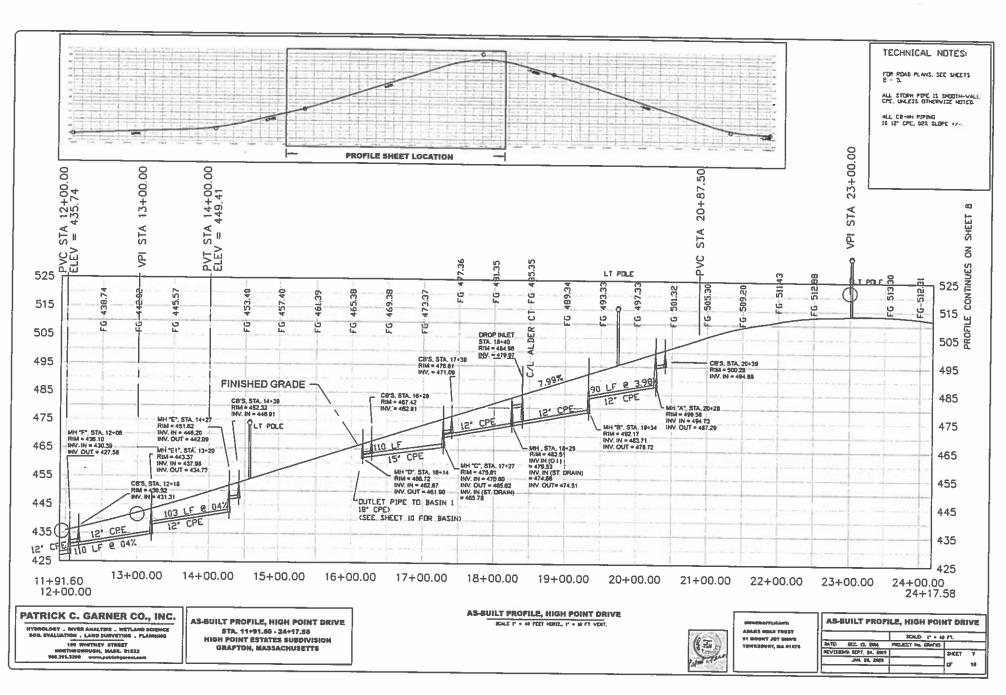


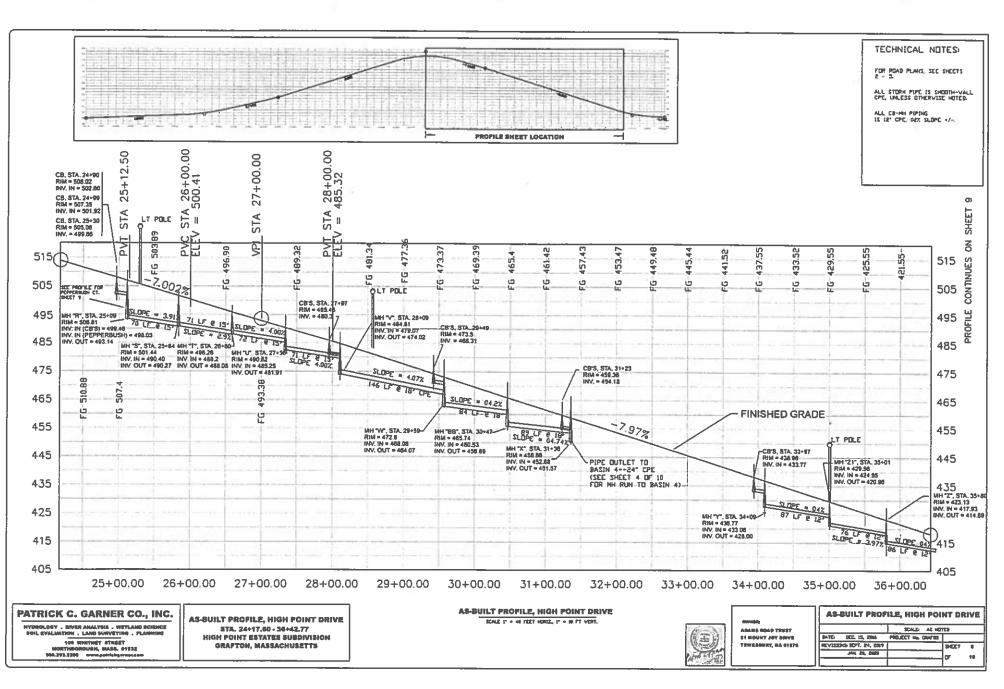
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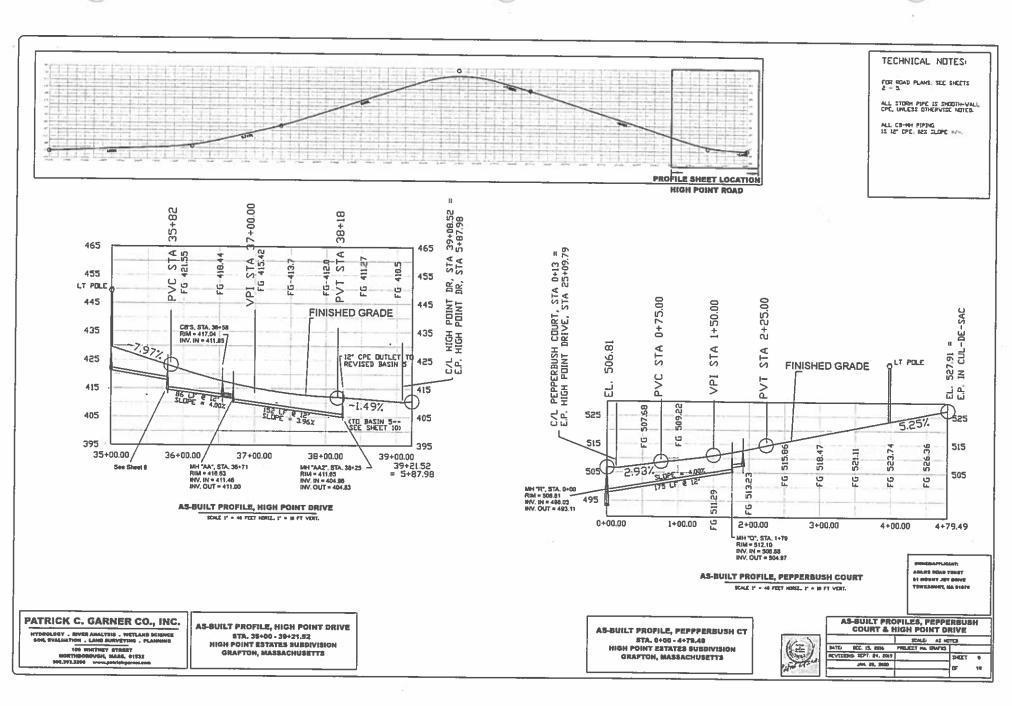


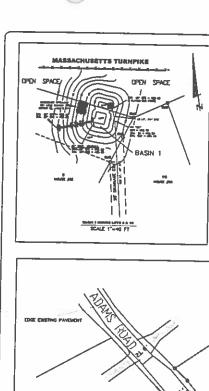
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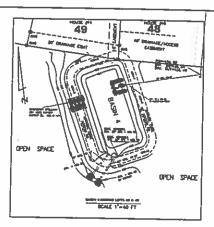


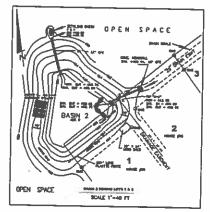


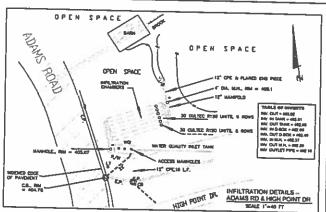


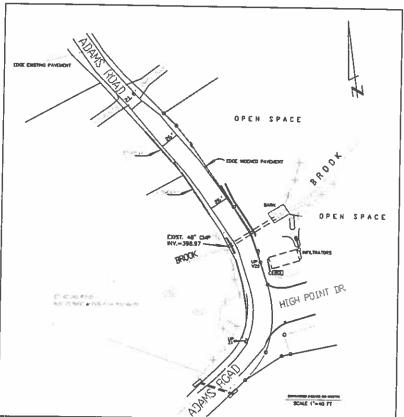


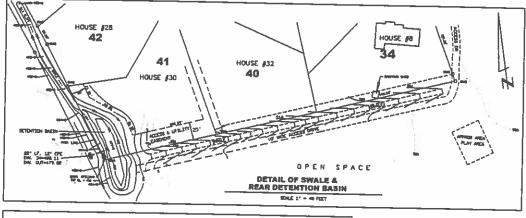


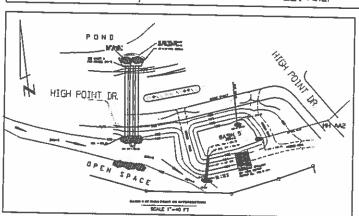












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2 SAMES LEBOEUF	15 Clearnew SI Gration 01519	Ray	Slilson
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1 Danie Bulacke	28 Fitzpatruck Rel GRAPTON	Draw a Bu Sic Co.	5/1/2020
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TRUST CONSTRUCTION CORP. 51 MOUNT JOY DRIVE TEWKSBURY, MA 01876 Tcl 978-851-3456 FAX 978-640-0531

LETTER OF TRANSMITTAL

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THE AM WEN COLLECTOR

Certificate of Good Standing

Application with the Town of Grafton must submit this completed form at the time of application. When all obligations are paid to date, you must attach this "Certificate of Good Standing," in the your application. Delinquent bills must be paid in full before the appropriate department accepts your application. Please make arrangements to pay these outstanding bills at the Collector's Office.

Please note: it can take up to three (3) business days to process each request.

Please check all that apply and indicate if permit(s) have been issued.

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UBuilding - Inspection(s) UBuilding - Electric UBuilding - Plumbing UBoard of Health	Permit Issued? Yes No	Permit Issued? Yes No OSeptic System OConservation OPlanning
Other Permit: Subdissi	sies Debend	
	sion Decermina	tion of Completeness
P.L Hingorani, Mana	ager	Adams Road Company LLC
Petitioner Name		Property Owner / Company Name
51 Mount Joy Drive		
Petitioner Address		High Point Drive & Pepperbush Property Address
City, State, Zip 978-851-3456 Plione	5	Grafton, MA 01519 City, State, Zip
Date:	Action 19	
Real Estate	1	Harasi Californica (Cara
Personal Property		
Motor Vehicle Excise		V.
Disposal		
General Billing		
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BHI No.	Lot#	Street Address
2816	74	95 High Point Drive
838	27	48 High Point Drive
801	48	16 High Point Drive Para
305	52	5 High Point Drive Pack
320	Open Space	13 Rear High Point Drive Pack
19	Open Space	2 High Point Drive Perd
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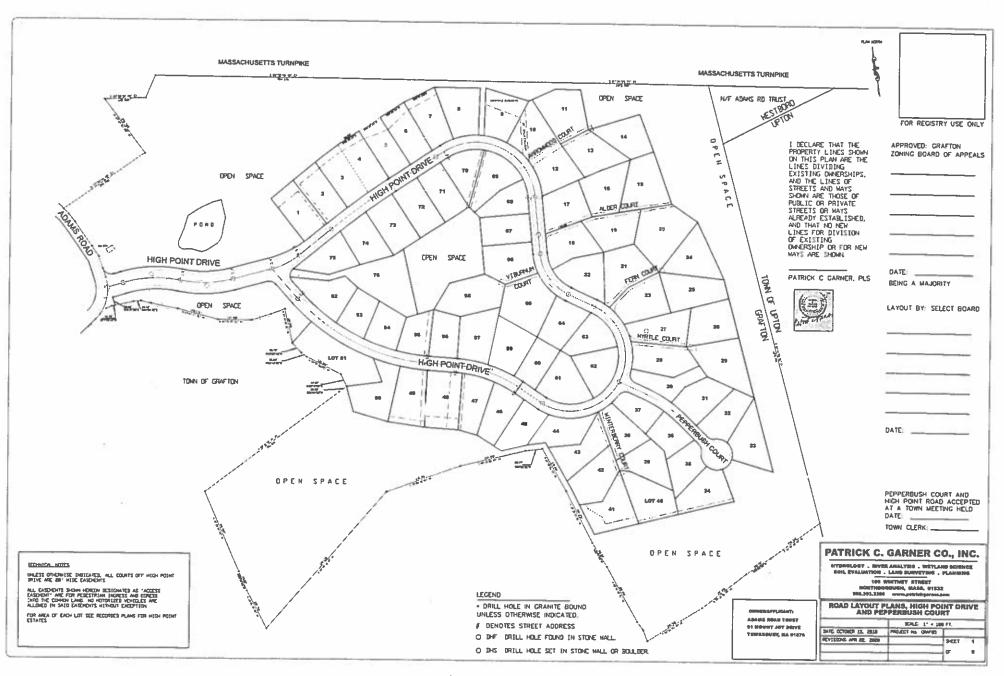
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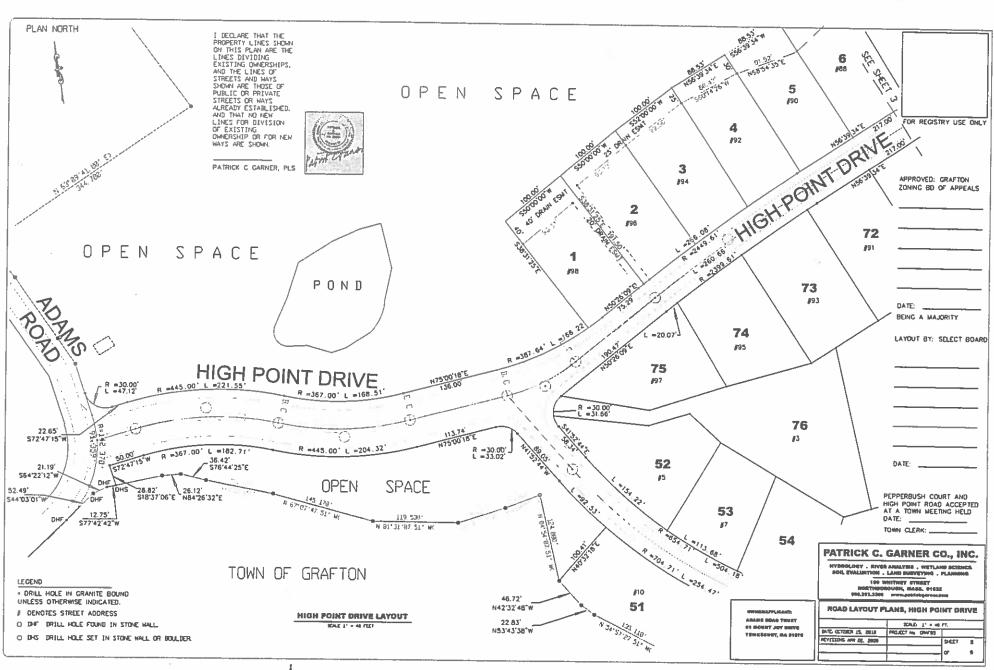
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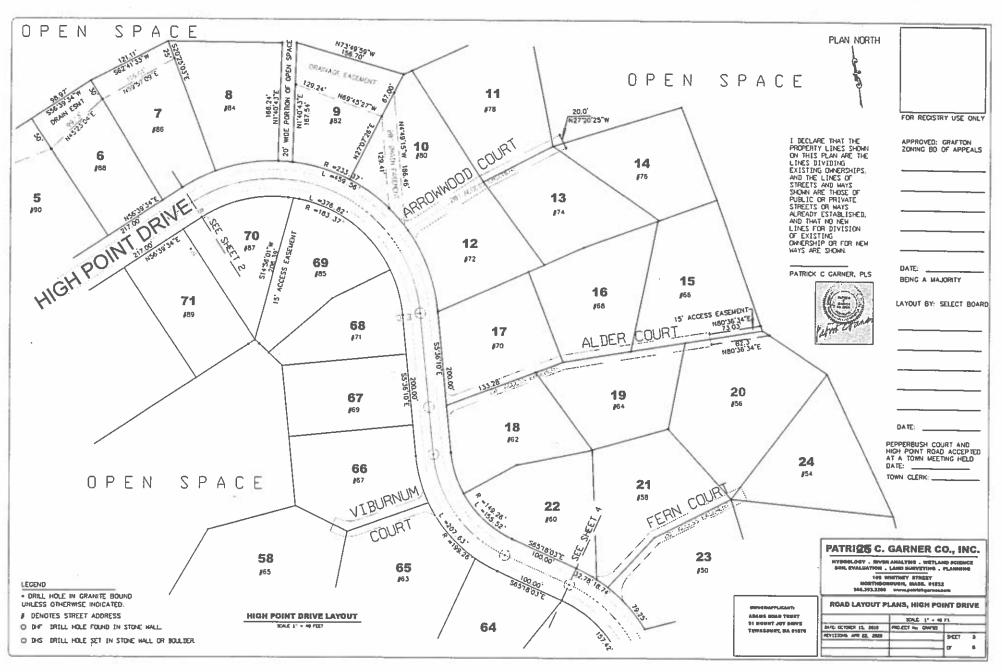
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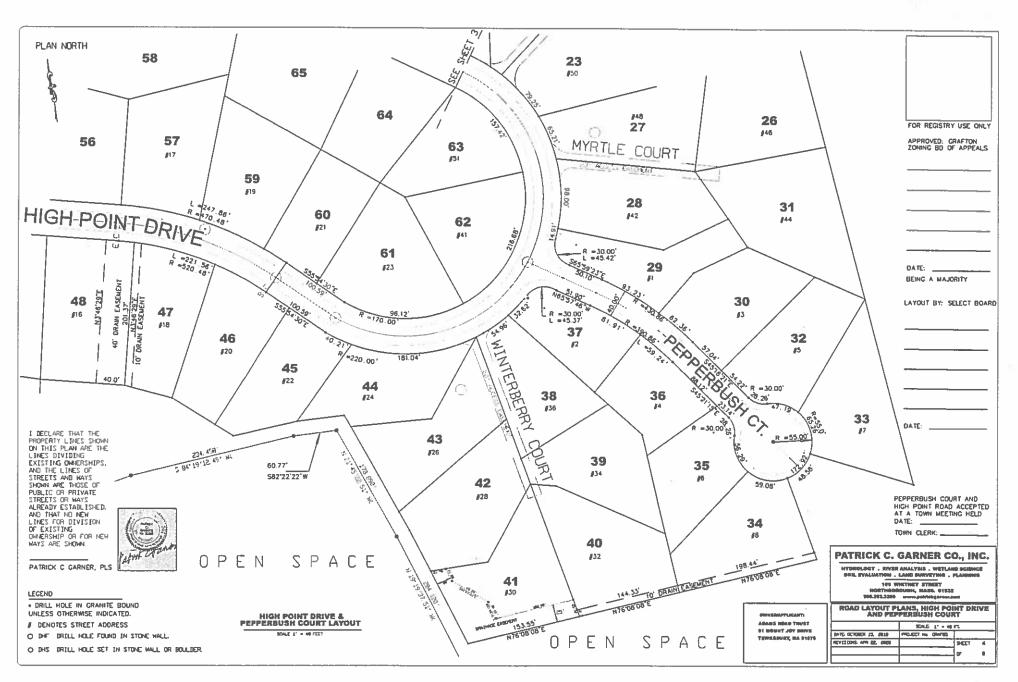
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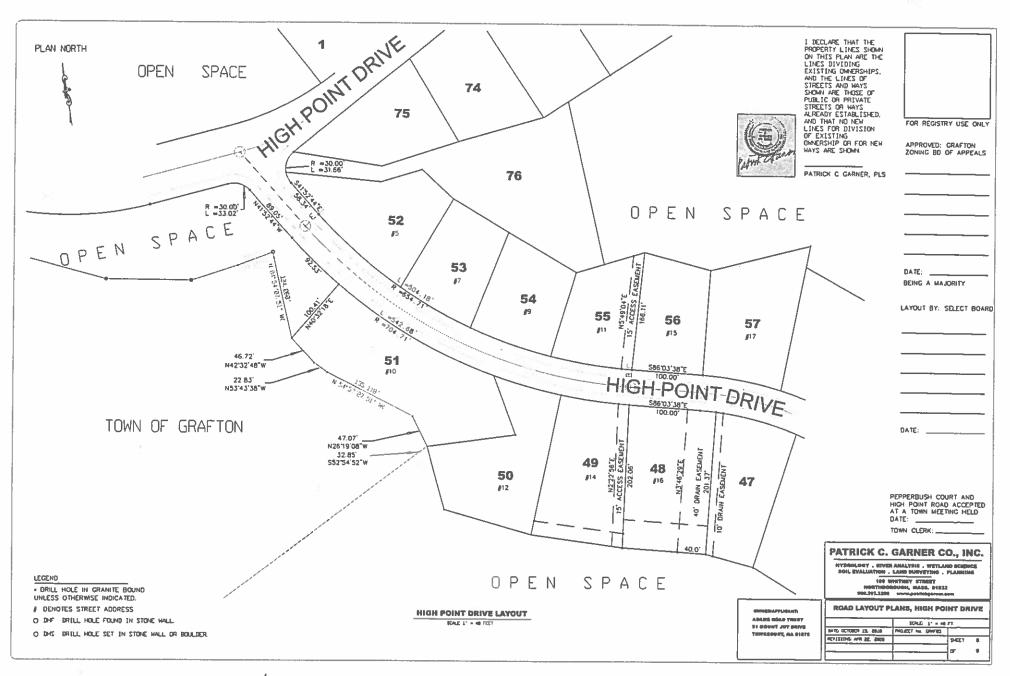
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GRANT OF ROADS

I, Pribhu L. Hingorani, Trustee of the Adams Road Trust, under a Declaration of Trust of Adams Road Trust, dated December 14, 1995, recorded with the Worcester County Registry of Deeds at Book 17540, Page 133 (the "Grantor"), owner of the land (the "Land") shown on a plan of land entitled "High Point Estates Subdivision, Grafton, Massachusetts", Owner/Applicant Adams Road Trust, Tewksbury, MA 01876, drawn by Patrick C. Garner Co. Inc., 109 Whitney Street, Northborough, MA 01532, latest revision dated December 19, 2005, recorded herewith (the "Plan"),

for consideration paid, and in full consideration of One and 00/100 (\$1.00) Dollar

hereby GRANT to the Town of Grafton (the "Grantee"), Worcester County, Commonwealth of Massachusetts, the variable-width road known as High Point Drive, recorded in the Worcester County Registry of Deeds at Plan Book 850, Plan 64, described as follows:

Beginning at the eastern right-of-way of Adams Road with its intersection with the centerline of High Point Drive having a right-of-way width of 78-feet, thence proceeding easterly down said centerline N 72 degrees 47 minutes 15 seconds E for a distance of 55.79 feet to a point of curve (POC); thence proceeding easterly along said centerline for a distance of 202.13 along an arc having a radius of 406.00 feet to a point of tangency (POT); thence proceeding easterly along said centerline for a distance of 186.42 feet along an arc having a reverse radius of 406.00 feet to a POC; thence proceeding easterly along said centerline N 75 degrees 00 minutes 18 seconds E for a distance of 140.43 feet to the centerline equals centerline of High Point Drive with High Point Drive (which defines its overall loop configuration) at which point the right-of-way width of High Point Drive begins to narrow from 78-feet to 50-feet; thence proceeding easterly along said centerline for a distance of 107.92 feet along an arc having a radius of 251.67 feet to a POT at which point the right-of-way width of High Point Drive continues to narrow from 78-feet to 50feet; thence proceeding easterly along said centerline N 50 degrees 26 minutes 09 seconds E for a distance of 144.00 feet to a POC from which point the right-of-way width of High Point Drive is 50-feet; thence proceeding easterly along said centerline for a distance of 263.37 feet along an arc having a radius of 2,424.61 feet to a POT; thence proceeding easterly along said centerline N 56 degrees 39 minutes 34 seconds E for a distance of 217.00 feet to a POC; thence proceeding easterly and southeasterly along said centerline for a distance of 305.05 feet along an arc having a radius of 208.37 feet to a POT; thence proceeding southerly along said centerline S 05 degrees 36 minutes 10 seconds E for a distance of 200.00 feet to a POC; thence proceeding southeasterly along said centerline for a distance of 164.00 feet along an arc having a radius of 174.26 feet to a POT; thence proceeding southeasterly along said centerline \bar{S} 65 degrees 18 minutes 03 seconds E for a distance of 100.00 feet to a POC; thence proceeding southeasterly and southerly along said centerline for a distance of 315.40 feet along an arc having a radius of 195.00 feet to a point which is the centerline equals centerline of High Point Drive and Pepperbush Court; thence proceeding southwesterly along said centerline of High Point Drive for a distance of 314.40 feet along an arc having a radius of 199.96 feet to a POT; thence proceeding northwesterly along said centerline N 55 degrees 54 minutes 30 seconds W for a distance of 99.70 feet to a POC; thence proceeding westerly along said

centerline for a distance of 234.71 feet along an arc having a radius of 446.01 feet to a POT; thence proceeding northwesterly along said centerline N 86 degrees 03 minutes 38 seconds W for a distance of 100.00 feet to a POC; thence proceeding westerly and northwesterly along said centerline for a distance of 523.43 feet along an arc having a radius of 679.71 feet to a POT; thence proceeding northwesterly along said centerline N 41 degrees 52 minutes 44 seconds W for a distance of 138.47 feet to a point which is the centerline equals centerline of High Point Drive, all right-of-way road intersections (High Point Drive and Adams Road, High Point Drive and Pepperbush Court, and High Point Drive and High Point Drive) having intersection curves with a radius of 30-feet.

I further GRANT to the Town of Grafton (the "Grantee"), Worcester County, Commonwealth of Massachusetts, the 40-wide dead-end road known as Pepperbush Court, recorded in the Worcester County Registry of Deeds at Plan Book 850, Plan 64, described as follows:

Beginning at the centerline equals centerline of High Point Drive and Pepperbush Court, having a right-of-way width of 40-feet and proceeding southeasterly along said centerline S 65 degrees 59 minutes 23 seconds E for a distance of 107.16 feet to a point of curve; thence proceeding southeasterly along said centerline for a distance of 148.37 along an arc having a radius of 410.86 feet to a point of tangency; thence proceeding southeasterly along said centerline S 45 degrees 16 minutes 21 seconds E for a distance of 122.96 feet to a point which is the center of a cul-de-sac at the end of the roadway, said cul-de-sac having an outside right-of-way radius of 55.00 feet, with right-of-way road intersections (High Point Drive and Pepperbush Court) having curves with a radius of 30-feet, and the cul-de-sac right-of-way intersection with the right-of-way of the 40-foot width of Pepperbush Court having curves with a radius of 30-feet.

Executed as a sealed instrument this

day of

,2020

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Pribhu L. Hingorani, as Trustee and not individually

The Commonwealth of Massachusetts

County of Middlesex

,2020

Then personally appeared the above named Pribhu L. Hingorani as Trustee of Adams Road Trust, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said Trust.

Before me,	
(Notary Public)	
My commission expires:	

GRANT OF EASEMENTS

I, Pribhu L. Hingorani, Manager of Adams Road Company, LLC (the "Grantor"), owner of the land (the "Land") shown on a plan of land entitled, "High Point Estates Subdivision, Grafton, Massachusetts", recorded at Worcester County Registry of Deeds at Plan Book 850, Plan 64 (the "Plan"),

For consideration paid, and in full consideration of One and 00/100 (\$1.00) Dollar

Hereby GRANT to the Town of Grafton (the "Grantee"), Worcester County, Commonwealth of Massachusetts, the following easements:

- 1. The nonexclusive right and easement to use the following areas of the Land as shown on the Plan for passage, by foot only, to and from the Land:
- a. A 15-foot wide access easement running along lot lines between lots 69 and 70, described as follows:
 Beginning at the common property line of Lots 69 and 70 at said line's intersection with the southern right-of-way of High Point Drive; thence proceeding easterly an arc distance of 7.50 feet along the right-of-way having a radius of 183.37 feet to a point; thence proceeding S 14 degrees 56 minutes 01 seconds W a distance of 211.01 feet to a point on the rear property line of Lot 68; thence proceeding N 46 degrees 31 minutes 55 seconds W for a distance of 8.51 feet to a point which is the common rear corner of Lots 69 and 70; thence proceeding S 56 degrees 39 minutes 34 seconds W for a distance of 11.30 feet to a point on the rear property line of Lot 71; thence proceeding N 14 degrees 56 minutes 01 seconds E a distance of 213.82 feet to a point on the southern right-of-way of High Point Drive; thence proceeding easterly an arc distance of 7.50 feet along the right-of-way to the point of beginning.
- b. A 20-foot wide access easement labeled "Arrowwood Court", running along lot lines of lots 10, 11, 12, 13 and 14, described as follows: Beginning at the common property line of Lots 10 and 12 at said line's intersection with the northern right-of-way of High Point Drive; thence proceeding southeasterly an arc distance of 25.06 feet along said right-of-way having a radius of 233.37 feet to a point; thence proceeding northeasterly along an arc having a distance of 26.99 feet and a radius of 18.50 feet to a point; thence proceeding northeasterly N 56 degrees 54 minutes 02 seconds E for a distance of 106.88 feet to a point; thence proceeding easterly N 62 degrees 39 minutes 35 seconds E for a distance of 129.98 feet to a point; thence proceeding N 27 degrees 20 minutes 25 seconds W for a distance of 20.00 feet to a point; thence proceeding westerly S 62 degrees 39 minutes 35 seconds W for a distance of 131.21 feet to a point; thence proceeding westerly S 56 degrees 54 minutes 02 seconds W for a distance of 108.21 feet to a point; thence proceeding westerly along an arc having a distance of 30.62 feet and a radius of 21.20 feet to a point on the northern right-of-way of High Point Drive; thence proceeding

southeasterly along said right-of-way an arc distance of 25.07 feet to the point of beginning.

- c. A 20-foot wide access easement labeled "Alder Court", running along lot lines of lots 15, 16, 17, 18, 19 and 20, described as follows: Beginning at the common property line of Lots 17 and 18 at said line's intersection with the eastern right-of-way of High Point Drive; thence proceeding southerly a distance of 22.30 feet along said right-of-way S 05 degrees 36 minutes 01 seconds E to a point; thence proceeding easterly along an arc having a distance of 19.66 feet and a radius of 18.11 feet to a point; thence proceeding easterly N 69 degrees 07 minutes 18 seconds E for a distance of 163.10 feet to a point; thence proceeding easterly N 80 degrees 36 minutes 34 seconds E for a distance of 209.43 feet to a point; thence proceeding N 09 degrees 23 minutes 26 seconds W for a distance of 20.00 feet to a point; thence proceeding westerly S 80 degrees 36 minutes 34 seconds W for a distance of 210.77 feet to a point; thence proceeding westerly S 69 degrees 07 minutes 18 seconds W for a distance of 147.34 feet to a point; thence proceeding westerly along an arc having a distance of 33.02 feet and a radius of 18.19 feet to a point on the northern right-of-way of High Point Drive; thence proceeding southerly along said right-of-way an arc distance of 32.16 feet to the point of beginning.
- d. A 20-foot wide access easement labeled "Fern Court", running along lot lines of lots 20, 21, 23, 24, and 25, described as follows: Beginning at the common property line of Lots 21 and 23 at said line's intersection with the eastern right-of-way of High Point Drive; thence proceeding southerly an arc distance of 29.20 feet along said right-of-way having a radius of 220.00 feet to a point; thence proceeding easterly along an arc having a distance of 35.28 feet and a radius of 33.17 feet to a point; thence proceeding northeasterly N 42 degrees 34 minutes 50 seconds E for a distance of 56.80 feet to a point; thence proceeding northeasterly N 63 degrees 00 minutes 44 seconds E for a distance of 139.35 feet to a point; thence proceeding N 26 degrees 59 minutes 16 seconds W for a distance of 20.00 feet to a point; thence proceeding westerly S 63 degrees 00 minutes 44 seconds W for a distance of 143.21 feet to a point; thence proceeding southwesterly S 42 degrees 34 minutes 50 seconds W for a distance of 59.70 feet to a point; thence proceeding westerly along an arc having a distance of 36.16 feet and a radius of 36.09 feet to a point on the eastern right-of-way of High Point Drive; thence proceeding southerly along said right-of-way an arc distance of 30.60 feet to the point of beginning.
- e. A 20-foot wide access easement labeled "Myrtle Court", running along lot lines of lots 26, 27, 28 and 31, described as follows:

 Beginning at the common property line of Lots 27 and 28 at said line's intersection with the eastern right-of-way of High Point Drive; thence proceeding southerly an arc distance of 25.10 feet along said right-of-way having a radius of 220.00 feet to a point; thence proceeding easterly along an arc having a distance of 22.93 feet and a radius of 18.47 feet to a point; thence proceeding southeasterly S 85 degrees 09 minutes 01 seconds E for a distance of 206.62 feet to a point; thence proceeding N 04

degrees 50 minutes 59 seconds E for a distance of 20.00 feet to a point; thence proceeding northwesterly N 85 degrees 09 minutes 01 seconds W for a distance of 210.03 feet to a point; thence proceeding westerly along an arc having a distance of 35.31 feet and a radius of 34.64 feet to a point on the eastern right-of-way of High Point Drive; thence proceeding southerly along said right-of-way an arc distance of 29.20 feet to the point of beginning.

- f. A 20-foot wide access easement labeled "Winterberry Court", running along lot lines of lots 38, 39, 40, 41, 42 and 45, described as follows:

 Beginning at the common property line of Lots 38 and 43 at said line's intersection with the southern right-of-way of High Point Drive; thence proceeding westerly an arc distance of 24.80 feet along said right-of-way having a radius of 220.00 feet to a point; thence proceeding southerly along an arc having a distance of 26.28 feet and a radius of 16.81 feet to a point; thence proceeding southerly S 20 degrees 18 minutes 24 seconds E for a distance of 222.68 feet to a point; thence proceeding N 69 degrees 41 minutes 36 seconds E for a distance of 20.00 feet to a point; thence proceeding northerly N 20 degrees 18 minutes 24 seconds W for a distance of 225.28 feet to a point; thence proceeding northerly along an arc having a distance of 25.35 feet and a radius of 22.53 feet to a point on the southern right-of-way of High Point Drive; thence proceeding westerly along said right-of-way an arc distance of 25.20 feet to the point of beginning.
 - g. A 20-foot wide access easement labeled "Viburnum Court", running along lot lines of lots 58, 65 and 66, described as follows: Beginning at the common property line of Lots 65 and 66 at said line's intersection with the western right-of-way of High Point Drive; thence proceeding southerly along said right-of-way along a curve having a radius of 199.26 feet and an arc distance of 26.20 feet to a point; thence proceeding westerly along an arc having an arc distance of 31.39 feet and a radius of 22.11 feet to a point; thence proceeding westerly S 70 degrees 15 minutes 35 seconds W for a distance of 82.73 feet to a point of curve; thence proceeding westerly along a curve having an arc distance of 41.44 feet and a radius of 63.23 feet to a point; thence proceeding northerly N20 degrees 40 minutes 24 seconds E for a distance of 20.00 feet to a point; thence proceeding easterly along a curve having an arc distance of 28.33 feet and a radius of 43.23 feet to a point; thence proceeding easterly N 70 degrees 15 minutes 35 seconds E for a distance of 80.78 feet to a point of curve; thence proceeding northeasterly along an curve having an arc distance of 29.53 feet and a radius of 18.82 feet to a point on the western right-of-way of High Point Drive; thence proceeding southerly along said right-of-way along a curve having a radius of 199.26 feet and an arc distance of 26.85 feet to the point of beginning.
- h. A 15-foot wide access area to open space partially running along lot lines of lots 15 and 20, described as follows:
 Beginning at the common property line of Lots 15 and 20, thence proceeding northerly N 19 degrees 34 minutes 00 seconds W for a distance of 7.60 feet to a point; thence proceeding westerly S 80 degrees 36 minutes 34 seconds W for a distance of

73.77 feet to a point; thence proceeding S 09 degrees 23 minutes 26 seconds E for a distance of 15.00 feet to a point; thence proceeding easterly N 80 degrees 36 minutes 34 seconds E for a distance of 83.30 feet to a point; thence proceeding northwesterly N 56 degrees 10 minutes 03 seconds W for a distance of 11.05 feet to the point of beginning.

i. A 15-foot wide access easement to open space running along lot lines 55 and 56, and described as follows:

Beginning at the common property line of Lots 55 and 56 at said line's intersection with the northern right-of-way of High Point Drive; thence proceeding northerly N 05 degrees 49 minutes 04 seconds E for a distance of 166.11 feet to a point on the rear property line of Lots 55 and 56; thence proceeding S 73 degrees 16 minutes 10 W for a distance of 16.25 feet to a point; thence proceeding southerly S 05 degrees 49 minutes 04 seconds W for a distance of 160.25 feet to a point on the northern right-of-way of High Point Drive; thence proceeding along said northern right-of-way of High Point Drive having a radius of 654.71 feet an arc distance of 15.03 feet to the point of beginning.

- 2. The nonexclusive right and easement to use the following areas of the Land for drainage purposes including the right to locate, construct, install, lay, dig up, operate, maintain, patrol, inspect, repair, replace, alter, extend or remove one or more pipes for the drainage of surface water and all necessary and proper conduits, conductors, pipes, foundations, fittings, and fixtures and other apparatus, equipment and fixtures deemed necessary for the purposes specified above, as the Grantee may from time to time desire along, upon, under and across said portions of the Land, to cut and trim trees, brush, overhanging branches and other obstructions to the extent that the Grantee deems necessary to clear and keep clear and operate safely said pipes; and the right to install in said portions of the Land temporary line or lines whenever in the judgment of Grantee it is required for the emergency maintenance of service, provided that in each instance the making of repairs or improvements shall be completed and the temporary line or lines removed as soon as practical; and the right to enter said portions of the Land for access thereto for all the above purposes:
 - a. An irregular-shaped drainage easement running over lots 1, 2, 3, 4, 5, 6 and 7, varying in width between 20 and 50 feet, and described as follows:

 Beginning at the northwest rear corner of Lot 1, thence proceeding northeasterly N 50 degrees E along the rear of Lots 1, 2 and 3 for a distance of 300.00 feet to a point; thence proceeding northeasterly N 56 degrees 39 minutes 34 seconds E along the rear of Lots 4, 5 and 6 for a distance of 276.03 feet to a point; thence proceeding northeasterly N 62 degrees 41 minutes 33 seconds E along the rear of Lot 7 for a distance of 121.11 feet to a point; thence proceeding southerly S 20 degrees 25 minutes 03 seconds E for a distance of 25.00 feet to a point; thence proceeding westerly S 59 degrees 57 minutes 09 seconds W for a distance of 116.01 feet to a point; thence proceeding westerly S 45 degrees 23 minutes 04 seconds W for a distance of 99.13 feet to a point; thence proceeding westerly S 68 degrees 54 minutes

35 seconds W for a distance of 91.52 feet to a point; thence proceeding westerly S 60 degrees 14 minutes 26 seconds W for a distance of 86.47 feet to a point; thence proceeding westerly S 50 degrees W along the rear of Lots 2 and 3 for a distance of 189.75 feet to a point; thence proceeding southeasterly S 38 degrees 31 minutes 25 seconds E for a distance of 166.5 feet to a point which lies on the northerly right-of-way of High Point Drive; thence proceeding westerly along said right-of-way along an curve having a radius of 2,449.61 feet for an arc distance of 10.00 feet to a point of curve; thence proceeding westerly along said right-of-way S 50 degrees 26 minutes 09 seconds W for a distance of 10.00 feet to a point; thence proceeding northwesterly N 38 degrees 31 minutes 25 seconds W for a distance of 90.31 feet to a point; thence proceeding westerly S 50 degrees W for a distance of 90.31 feet to a point; thence proceeding northerly along the westerly line of Lot 1 N 38 degrees 31 minutes 09 seconds W for a distance of 40.00 feet to the point of beginning.

b. An irregular-shaped drainage easement on the northern portion of lot 9 and 10, and described as follows:

Beginning at the northwest rear corner of Lot 9, thence proceeding southeasterly S 73 degrees 49 minutes 59 seconds E along the rear of Lot 9 for a distance of 156.70 feet to a point; thence proceeding southwesterly S 27 degrees 07 minutes 26 seconds W for a distance of 28.85 feet to a point; thence proceeding southerly over Lot 10 S 04 degrees 09 minutes 15 seconds E for a distance of 186.46 feet to a point which lies on the eastern right-of-way of High Point Drive; thence proceeding northerly along said right-of-way along an curve having a radius of 233.37 feet for an arc distance of 33.10 feet to a point; thence proceeding northerly over Lot 10 N 04 degrees 09 minutes 15 seconds W for a distance of 129.41 feet to a point on the common lot line of Lots 9 and 10; thence proceeding N 69 degrees 45 minutes 27 seconds W for a distance of 129.24 feet to a point; thence proceeding N 01 degrees 40 minutes 43 seconds E for a distance of 58.40 feet to the point of beginning.

c. A 20-foot wide drainage easement running between lots 48 and 49, and described as follows:

Beginning at the common property line of Lots 47 and 48 at said line's intersection with the southern right-of-way of High Point Drive; thence proceeding westerly along southern right-of-way of High Point Drive an arc distance of 10.04 feet having a radius of 421.01 feet to a point; thence proceeding southerly S 03 degrees 46 minutes 29 seconds W for a distance of 201.63 feet to a point on the rear property line of Lot 48; thence proceeding S 86 degrees 03 minutes 38 seconds E for a distance of 10.0 feet to a point; thence proceeding S 74 degrees 58 minutes 30 seconds E for a distance of 10.25 feet to a point; thence proceeding northerly N 03 degrees 46 minutes 29 seconds E for a distance of 202.55 feet to a point on the southern right-of-way of High Point Drive; thence proceeding westerly along southern right-of-way of High Point Drive an arc distance of 10.03 feet having a radius of 421.01 feet to the point of beginning.

d. A 40-foot wide utility easement in the rear of Lot 48, and described as follows:

Beginning at the southerly rear corner of Lots 47 and 48, thence proceeding northwesterly N 86 degrees 03 minutes 38 seconds W along the rear of Lot 48 for a distance of 117.69 feet to a point which is the rear corner of Lots 48 and 49; thence proceeding northerly N 02 degrees 22 minutes 56 seconds E for a distance of 40.04 feet to a point; thence proceeding easterly S 86 degrees 03 minutes 38 seconds E for a distance of 119.06 feet to a point; thence proceeding southerly S 03 degrees 46 minutes 29 seconds W for a distance of 40.02 feet to the point of beginning.

e. A 10-foot wide drainage easement running in the rear of lots 34 and 40, and described as follows:

Beginning at the rear southeast corner of Lot 34, thence proceeding westerly along the rear line of Lots 34 and 40 S 76 degrees 08 minutes 08 seconds W for a distance of 343.86 feet to a point which is the southwest rear corner of Lot 40; thence proceeding northerly N 20 degrees 18 minutes 24 seconds W for a distance of 10.03 feet to a point; thence proceeding easterly N 76 degrees 08 minutes 08 seconds E for a distance of 342.77 feet to a point; thence proceeding southerly S 20 degrees 09 minutes 10 seconds E for a distance of 10.03 feet to the point of beginning.

f. An irregular-shaped drainage easement running in the rear of lot 41, and described as follows:

Beginning at the rear southeast corner of Lot 41, thence proceeding westerly along said rear line S 76 degrees 08 minutes 08 seconds W for a distance of 161.44 feet to a point which is the southwest rear corner of Lot 41; thence proceeding northerly N 27 degrees 19 minutes 38 seconds W for a distance of 115.62 feet to a point; thence proceeding easterly N 80 degrees 31 minutes 54 seconds E for a distance of 21.90 feet to a point; thence proceeding southerly S 27 degrees 19 minutes 38 seconds E for a distance of 21.0 feet to a point; thence proceeding southeasterly S 60 degrees 02 minutes 03 seconds E for a distance of 60.00 feet to a point; thence proceeding S 25 degrees 49 minutes 16 seconds E for a distance of 26.00 feet to a point; thence proceeding easterly N 76 degrees 08 minutes 08 seconds E for a distance of 102.00 feet to a point which lies on the common line between Lots 40 and 41; thence proceeding southerly along said line S 20 degrees 18 minutes 24 seconds E for a distance of 25.30 feet to the point of beginning.

The rights granted under Paragraph 2 above shall include the right to pass under, along, across and over said easement areas and to pass over and to bring equipment upon said easement areas to accomplish any and all of said purposes, together with a right-of-way over any private ways adjacent or abutting said easement areas which the Grantor is entitled to grant and for the purpose of giving to the Grantees access to said easement areas, as needed.

It is expressly understood that the Town of Grafton shall not be responsible for extensive landscaping such as replacement of trees and shrubs in connection with maintenance of said easements.

Executed	ลร ล	sealed	instrument	thic
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day of

2020

Pribhu L. Hingorani, as Manager And not individually

The Commonwealth of Massachusetts

County of Middlesex

,2020

Then personally appeared the above named Pribhu L. Hingorani as Manager of Adams Road Company LLC, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said Trust.

Before me,		
·	(Notary Public)	· · · · · · · · · · · · · · · · · · ·
My commis	sion expires:	

GRANT OF OPEN SPACE

I, Pribhu L. Hingorani, Manager, Adams Road Company, LLC, a Massachusetts corporation, (the "Grantor"), owner of the land (the "Land") shown on a plan of land entitled "High Point Estates Subdivision, Grafton, Massachusetts", Recorded at Worcester county Registry of Deed at Plan Book 850, Plan 64, (the "Plan"),

for consideration paid, and in full consideration of One and 00/100 (\$1.00) Dollar

hereby GRANTS to the Town of Grafton (the "Grantee"), Worcester County, Commonwealth of Massachusetts, and the following Open Space:

I. Undeveloped land comprised of uplands and wetlands starting at a point of beginning at the intersection of the right-of-way of Adams Road and the southerly property line of a parcel now or formerly owned by Paul and Linda Massoni; thence proceeding northerly down said Massoni line for 344.78 feet to a point; thence proceeding northwesterly along the rear property of Massoni, and lands now or formerly owned by Eileen C. White, and Thomas and Rona Richard for a distance of 236.56 feet to a point; thence proceeding easterly along the property line of lands now or formerly owned by Skowronek and Tombari for a distance of 145.00 feet to a point; thence proceeding northerly along the rear line of said parcel for a distance of approximately 85 feet to a point which lies on the southerly right-of-way of the Massachusetts Turnpike; thence proceeding along said right-of-way for a distance of 2,380.98 feet to a point; thence proceeding southerly for 212.06 feet to a town bound at the Grafton-Westborough-Upton town line intersection; thence proceeding southerly along the Grafton-Upton town line for a distance of 1,378.95 feet to a point at the intersection of land owned by the Town of Grafton; thence proceeding southwesterly along said line along a stonewall for consecutive distances of 212.12 feet, 101.79 feet, 197.37 feet, and 225.52 feet to a point of turn; thence proceeding northwesterly along a stonewall along land owned by the Town of Grafton for consecutive distances of 41.05 feet, 36.22 feet, 222.97 feet, 99.26 feet, 204.12 feet and 170.89 feet to a point of turn; thence proceeding southwesterly along a stonewall along land owned by the Town of Grafton for consecutive distances of 80.77 feet, 234.45 feet, and 274.3 feet to a point of turn; thence proceeding southwesterly along land owned by the Town of Grafton for a distance of 639.63 feet to a point; thence proceeding northwesterly along land owned by the Town of Grafton for consecutive distances of 150.34 feet, 73.80 feet and 303.80 feet to a point; thence proceeding northeasterly along land owned by the Town of Grafton for consecutive distances of 586.88 feet and 32.85 feet to a drill hole which is at the common rear corner for Lots 50 and 51; thence proceeding easterly along the rear property lines of Lots 50 through 40, and continuing along the rear of Lot 34 to a point; thence proceeding along the side property line of Lot 34 to a point of the right-of-way of Pepperbush Court; thence proceeding along said right-of-way of Pepperbush Court for an arc distance of 48.58 feet to a point; thence proceeding along the side property line of Lot 33 for a distance of 152.08 feet to a point; thence proceeding northerly along the rear property lines of Lots 33, 31, 26, 25, 24, 20, 15 and 14 to a point of turn; thence proceeding along the side property line of Lot 14 for a distance of 189.00 feet to a point of intersection of the property lines for Lots 14 and 11; thence proceeding along the easterly side property line of Lot 11 for a distance of 143.80 feet to a point; thence proceeding westerly along

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the rear property lines of Lots 11, 10 and 9 to a point; thence proceeding along the westerly side property line of Lot 9 for a distance of 167.54 feet to a point on the northern right-of-way of High Point Drive; thence proceeding westerly along said right-of-way of High Point Drive for an arc distance of 20.0 feet to a point which is the southeastern front corner of Lot 8; thence proceeding northerly along the side property line of Lot 8 for a distance of 166.24 feet to a point; thence proceeding westerly along the rear property lines of Lots 8 through 1 to a point which is the northwestern rear corner of Lot 1; thence proceeding southerly along the side property line of Lot 1 for a distance of 189.95 feet to a point on the northern right-of-way of High Point Drive; thence proceeding westerly along said right-of-way of High Point Drive for an arc distance of 141.51 feet to a point of curve; thence proceeding along said right-of-way of High Point Drive for a distance of 138.00 feet to a point of curve; thence proceeding westerly along said right-of-way of High Point Drive for an arc distance of 168.51 feet to a point of curve; thence proceeding westerly along said right-of-way of High Point Drive for an arc distance of 221.55 feet to a point of curve; thence proceeding along said right-of-way of High Point Drive for a distance of 22.85 feet to a point of curve at the intersection of High Point Drive and Adams Road; thence proceeding along said intersection are for an arc distance of 47.12 feet to a point on the eastern right-of-way of Adams Road; proceeding along said eastern right-of-way of Adams Road for a distance of 250.00 feet, more or less, to the point of beginning at the intersection of the right-of-way of Adams Road and the southerly property line of a parcel now or formerly owned by Paul and Linda Massoni.

- 2. Undeveloped land starting at a Point of Commencement at the intersection of the eastern right-of-way of Adams Road and the northerly property line of a parcel owned by the Town of Grafton; thence proceeding northeasterly along the southern right-of-way of High Point Drive for a distance of 52.49 feet, 21.19 feet and 12.75 feet to the Point of Beginning; thence proceeding northwesterly along said right-of-way of High Point Drive for a distance of 28.82 feet to a point of turn; thence proceeding easterly along said right-of-way of High Point Drive for a distance of 50.00 feet to a point of curve; thence proceeding easterly along said right-of-way of High Point Drive for an arc distance of 182.71 feet to a point of curve; thence proceeding easterly along said right-of-way of High Point Drive for an arc distance of 204.32 feet to a point of curve; thence proceeding easterly along said right-of-way of High Point Drive for a distance of 113.74 feet to a point at the intersection of High Point Drive with High Point Drive; thence proceeding southerly along said right-of-way of High Point Drive for an arc distance of 33.02 feet to a point; thence proceeding southeasterly along said right-of-way of High Point Drive for a distance of 89.05 feet to a point; thence proceeding southeasterly along said right-of-way of High Point Drive for an arc distance of 92.53 feet to a point which is the northwest front corner of Lot 51; thence proceeding southwesterly along said property line for a distance of 100.41 feet to a stonewall along the northerly property line of land owned by the Town of Grafton; thence proceeding northwesterly along a stonewall along land owned by the Town of Grafton for a distance of 124.08 feet to a point of turn in a stonewall; thence proceeding westerly along a stonewall along land owned by the Town of Grafton for consecutive distances of 52.26 feet, 69.27 feet, 119.53 feet, 145.17 feet, 95.37 feet, 36.42 feet, 26.12 feet, and approximately 65 feet to the Point of Beginning.
- 3. Undeveloped upland starting at a Point of Commencement at the intersection of the southern right-of-way of High Point Drive and the common front corner of Lots 69 and 70; thence

proceeding southerly along the side line of Lots 69 and 70 for a distance of 206.39 feet to the Point of Beginning; thence proceeding southwesterly along the rear lines of Lots 71, 21 and a portion of 73 to a point of turn; thence proceeding southerly along the rear line of Lot 76 for a distance of 233.74 feet to a point; thence proceeding easterly along the rear line of Lot 55 for a distance of 59.22 feet to a point; thence proceeding easterly along the side line of Lot 58 for a distances of 108.44 and 126.81 feet to a point along the lines of Lots 58 and 66; thence proceeding northerly along the rear line of Lots 66 and 67 to a point which is the rear common corner of Lots 67 and 68; thence proceeding northwesterly along the rear line of Lots 68 and 69 to the Point of Beginning at the rear common corner of Lots 69 and 70.

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